



INNOMET II - Integrated human resources development and monitoring system for adding innovation capacity of labour force and entrepreneurs of the metal engineering, machinery and apparatus sector

## **INNOMET II System User Manual**



Education and Culture

**Leonardo da Vinci**

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## 1. General introduction

The System has following user functionalities:

- Public User – does not require pre-registration;
- Educational Organisation User – requires authorisation, for schools, training centres, colleges, universities;
- Enterprise User – requires authorisation from login page (see Fig.1-1), for enterprises only;
- Consultant User – for consultants, consulting companies helping enterprises
- Administrator – for administration of whole system.



Figure 1-1 Screenshot of Innomet II System login page

## 2. Public User

Public (Open Access) User can see the following:

- Courses calendar;
- Reports.

### 2.1. Courses calendar

Course calendar enables to search available courses. The options can be (Fig. 2-1):

- All courses
- E-learning courses
- Face-to-face education

This list can be changed by administrator.

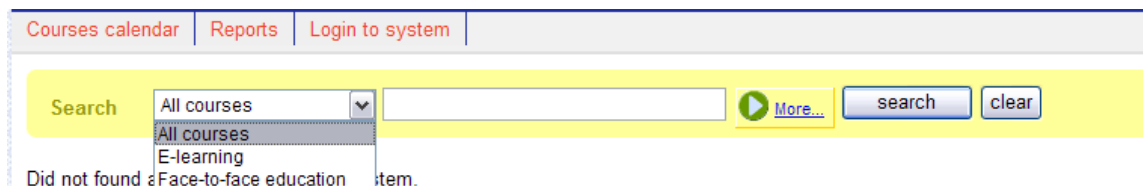


Figure 2-1 Screenshot of Innomet II System login page

#### 2.1.1. Search of courses

The search is performed after clicking on „Search” button.

The search function normally shows only active courses, where registration is open. In case of searching courses what are on the run, but registration is already closed, or courses which are not active, you should expand the search by clicking on button „More” (Fig. 2-2).



After that is possible to refine the search by:

- Beginning date
- Ending date
- Maximum price
- Course type: is it e-course
- Target group (by professions or skills)
- Language



The search boxes can be cleared by clicking on button “Clear”.

[Courses calendar](#)
[Reports](#)
[Login to system](#)

Search

All courses

More...

search
clear

Beginning date
2007-01-01

Ending date

Maximum price
0.00

Is e-course
☐

date of course beginning

Skills

Edit this list

Target group

Automotive Technician  
Automotive whitesmith  
CAD Engineer  
CNC machine tool programme  
CNC Operator  
Designer  
Development Manager  
Director

Organizations

Tallinna Tehnikaülikool

Languages

English  
Estonian  
Finnish

Found 1 course

[MET8110 Production Engineering](#)  
2007-01-29 - 2007-05-21 (88 hours)
Tallinna Tehnikaülikool

details
view
reserve

Figure 2-2 Screenshot of courses calendar search menu with an exemplary result

The found course details can be viewed by clicking on button “View” or “Details” (Fig. 2-3).

Found 1 course

[MET8110 Production Engineering](#)  
2007-01-29 - 2007-05-21 (88 hours)
Tallinna Tehnikaülikool

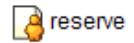
details
view
reserve

course type	languages	lecturer	price
E-learning (e-course)	English, Estonian	Kaia Lõun; Tauno Otto	
target: CAD Engineer, Financial Director/Manager, Lead Mechanical Designer, Manufacturing Engineer, Mechanical Engineer, Production Director, Production Manager			
schedule:			
1. HOMEWORK 1			
2. HOMEWORK 2			
3. HOMEWORK 3			
4. HOMEWORK 4			
5. INTRODUCTION 2007-01-29 18:00:00 (2 h) K.Lõun, T.Otto			
6. MAIN COMPONENTS OF PRODUCTION. ORGANISATION AND MANAGEMENT OF MANUFACTURING ENTERPRISE. PRODUCTION CONCEPTS 2007-02-05 18:00:00 (2 h) K.Lõun, T.Otto			
7. Presentations 2007-02-19 18:00:00 (2 h) K.Lõun, T.Otto			
8. INTEGRATED PRODUCTION. PRODUCTION SYSTEMS AND THEIR CLASSIFICATION. TECHNOLOGICAL CAPABILITIES 2007-02-26 18:00:00 (2 h) K.Lõun, T.Otto			
9. QUALITY FUNCTIONS AS KEY FACTORS. 2007-03-05 18:00:00 (2 h) K.Lõun, T.Otto			
0. Presentations 2007-03-19 18:00:00 (2 h) K.Lõun, T.Otto			
1. HUMAN RESOURCES DEVELOPMENT IN ENTERPRISE. PRACTICAL EXERCISES IN COMPUTER CLASS. 2007-03-26 18:00:00 (2 h) K.Lõun, T.Otto			
2. ANALYSIS OF EFFICIENCY OF THE COMPANY. POSSIBILITIES OF INCREASING THE COMPETITIVENESS. PRODUCTIVITY 2007-04-02 18:00:00 (2 h) K.Lõun, T.Otto			
3. Presentations 2007-04-16 18:00:00 (2 h) K.Lõun, T.Otto			
4. LAYOUT PLANNING. ESSENCE OF PRODUCTION PLANNING 2007-04-23 18:00:00 (2 h) K.Lõun, T.Otto			
5. TRANSPORTATION TASKS. DETERMINATION OF AN OPTIMAL ORDER OF DETAIL MACHINING 2007-04-30 18:00:00 (2 h) K.Lõun, T.Otto			
6. Presentations 2007-05-14 18:00:00 (2 h) K.Lõun, T.Otto			
7. Presentations 2007-05-21 18:00:00 (2 h) K.Lõun, T.Otto			

Figure 2-3 Screenshot of found course details



### 2.1.2. Making reservations



It should be noticed, that button “View” gives better overview of the course. It is also possible to reserve a place for some course by clicking “Reserve”.

So, for making a reservation from Public User point of view should be searched for a needed course either by keyword, date, profession or skills, and after finding the interesting one there is possible after detailed view also making of reservation. This functionality enables finding courses also people looking for new perspectives outside of company.

For making reservation the following information is expected to input (Fig. 2-4):

- First name
- Last name
- ID code (personal code)
- Profession
- Contact phone
- Contact e-mail
- Order type and delivery way

Optional information for registration includes also:

- Home address
- Zip code
- Organization
- Registration no of organization
- Address of organization
- Field of activity of the organization
- Comments

**MET8110 Production Engineering**

Course is held by Tallinna Tehnikaülikool and starts at 2007-01-29.

Please enter Your information below. Fields marked with \* must be entered!

first name *	<input type="text"/>
last name *	<input type="text"/>
personal code *	<input type="text"/>
profession *	<input type="text"/>
contact phone *	<input type="text"/>
contact e-mail *	<input type="text"/>
home address	<input type="text"/>
home address zipcode	<input type="text"/>
organization	<input type="text"/>
organization registration number	<input type="text"/>
organization address	<input type="text"/>
organization address zipcode	<input type="text"/>
organization activities	<input type="text"/>
order type *	
order delivery way *	
comments	<input type="text"/>

reserve

cancel

Figure 2-4 Screenshot of course registration page

## 2.2. Reports

On this level the menu “Reports” gives overview of skill values – a generalized report.

The report can be generated according to (Fig. 2-5):

- Profession
- Skill type
  - All skill types
  - Basic skills
  - General skills
  - Special skills
  - Personal identity
- Region
- Sector
  - All sectors
  - Machinery
  - Automotive engineering
  - Metal engineering
  - Instrumentation engineering
  - Apparatus engineering
- Sorting order
  - Medium actual value, lowest to highest
  - Medium actual value, highest to lowest
  - Medium difference between required actual value, highest to lowest
  - Medium difference between required actual value, lowest to highest
  - Skill name (in ascending order)
  - Skill name (in descending order)

Courses calendar | Reports | Login to system | Eesti | English | Latviešu

Overview of skill values - report parameters

profession: Marketing Manager

skill type: (all skill types)

skill: (all)

region: Northern Estonia

sector: Machinery

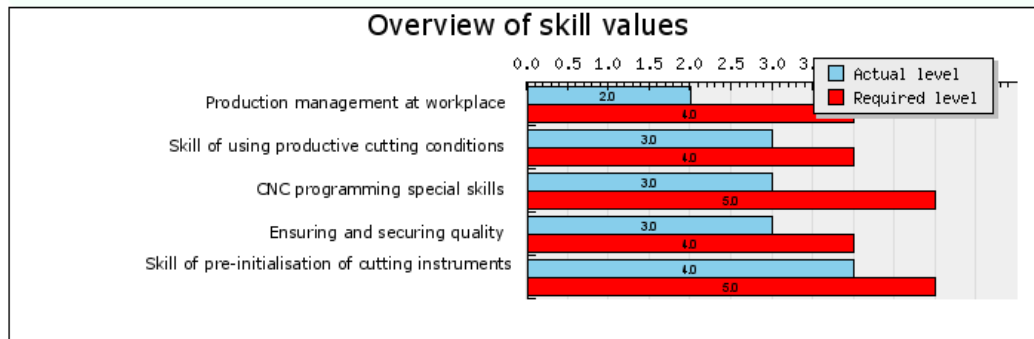
sorting order: Medium actual value, lowest - highest

Next

Figure 2-5 Overview of skill values: setting up parameters

After clicking on button “Next” the graphical representation is shown (Fig. 2-6).

Next



Print

**Figure 2-6 Overview of skill values: graphical representation**

Actual level is represented by blue and required (needed) level by red.

### 3. Educational Organisation User

Study programs	Courses	Courses calendar	Reports	Settings	Logout
----------------	---------	------------------	---------	----------	--------

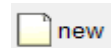
The Educational (Organisation) User has the following submenus:

- Study programs
- Courses
- Courses calendar
- Reports
- Settings
  - Contact information
  - User information
- Logout

#### 3.1. Study programs

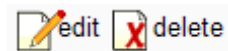
Study programs
----------------

The “Study programs” menu enables to input general study programs, covering several courses. For creating a new program a button “New” should be clicked.



Thereafter a new page is opened, where following data is expected to be entered:

- Name of the study program
- Homepage (URL) of the program
- Connected professions (list of professions, selection can be made by clicking on corresponding checkboxes).



Already existing study programs can be edited or deleted (Fig. 3-1).

Study programs Courses Courses calendar Reports Settings Logout

Study programs

new

Search:

search

clear

#	name	organization	
1	Industrial Engineering and Management	Tallinn University of Technology	<div><div></div><div>edit</div></div> <div><div></div><div>delete</div></div>
2	Product Development and Production Engineering	Tallinn University of Technology	<div><div></div><div>edit</div></div> <div><div></div><div>delete</div></div>
3	Mechatronics	Tallinn University of Technology	<div><div></div><div>edit</div></div> <div><div></div><div>delete</div></div>

Figure 3-1 Overview of skill values: setting up parameters

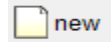
Study programs can be searched by search box.

Search:	<input type="text"/>	<input type="button" value="search"/>	<input type="button" value="clear"/>
---------	----------------------	---------------------------------------	--------------------------------------

### 3.2. Courses

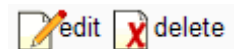
Courses

The “Courses” menu enables to input new courses and edit the existing ones. For creating a new program a button “New” should be clicked.



Thereafter a new page is opened, where following data is expected to be entered:

- Name of the course
- Study type
- Checkbox for selecting e-courses
- Start date
- End date
- Description and goal
- Homepage (URL) of the course
- Number of auditorial work hours
- Number of practical work hours
- Number of exercise work hours
- Lecturer(s)
- Minimal number of participants
- Maximal number of participants
- Price
- Skills to be improved with this course (can be selected from a list)
- Connected professions (list of professions, selection can be made by clicking on corresponding checkboxes).
- Language of the course
- Schedule of the course
  - Topic
  - Start date
  - Start time
  - Duration
  - Location (room)
  - Lecturer
  - Auditorial work (hours)
  - Practical work (hours)
  - Exercises (hours)



Already existing study programs can be edited, viewed or reserved (Fig. 3-2).

[Study programs](#)
[Courses](#)
[Courses calendar](#)
[Reports](#)
[Settings](#)
[Logout](#)

Eesti **English** Latviešu

**Course detailed view**

course name	<b>MET8110 Production Engineering</b>
training organization	Tallinn University of Technology
course type	E-learning
training period	2007-01-29 - 2007-05-21
training time	auditorial: 48, practices: 0, exercises: 40 (88 hours)
target group	Automotive Engineer, Industrial Engineer, Production Director, Production Engineer, Production Manager, Designer
goal of training	Production engineering knowledge, CAD/CAM user skills, Analysing skills, Productivity management skills, Productivity development, Production routes planning skills, Production planning skills, Production management skills, Production management at workplace, Production logistics know-how, Technology routing skills, Technological effectiveness calculation skills, Production planning knowledge, CNC programming knowledge
training outcome	Production systems and integrated manufacturing. The structures of the companies and their description. Organization and management. Processes of the companies (main and supporting processes - their essence). Process optimization. Measurement, analysis, and continual improvement (supporting techniques). Measurement by objectives. Order fulfilment process and its optimization. Productivity. Analysis of efficiency of the company. Possibilities of increasing the competitiveness.
lecturer(s)	Kaia Lõun; Tauno Otto
number of participants	minimal: 5 maximal: 25
additional information	<a href="http://webct6.e-uni.ee/">http://webct6.e-uni.ee/</a>

Course schedule

Common tasks

Back
 reserve
 edit

**Figure 3-2 Course detailed view**

Courses can be searched by search box.

Search:

search

clear

### 3.3. Courses calendar

This menu item is the same as for public access users.

Courses calendar

Course calendar enables to search available courses. The options can be:

- All courses
- E-learning courses
- Face-to-face education

This list can be changed by administrator.

[Courses calendar](#)
[Reports](#)
[Login to system](#)

Search

All courses

All courses

E-learning

Face-to-face education

More...

search

clear

Did not found item.

#### 3.3.1. Search of courses

search

The search is performed after clicking on „Search” button.

The search function normally shows only active courses, where registration is open. In case of searching courses what are on the run, but registration is already closed, or courses which are not active, you should expand the search by clicking on button „More” (Fig. 3-3).



After that is possible to refine the search by:

- Beginning date
- Ending date
- Maximum price
- Course type: is it e-course
- Target group (by professions or skills)
- Language



The search boxes can be cleared by clicking on button “Clear”.

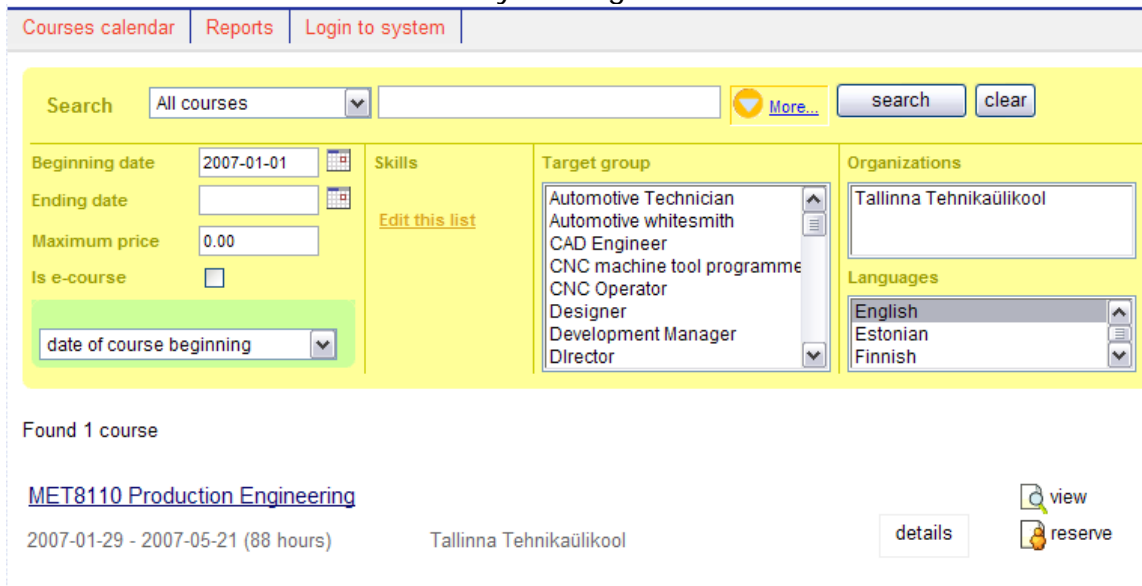
The screenshot shows a web interface for searching courses. At the top, there are tabs for "Courses calendar", "Reports", and "Login to system". Below the tabs is a search section with a dropdown menu set to "All courses", a search input field, a "More..." button, and "search" and "clear" buttons. The search results are displayed in a grid with four columns: "Beginning date", "Ending date", "Maximum price", and "Is e-course". The "Beginning date" is set to "2007-01-01". The "Ending date" is empty. The "Maximum price" is set to "0.00". The "Is e-course" checkbox is unchecked. Below these fields is a dropdown menu labeled "date of course beginning". To the right of these fields are sections for "Skills", "Target group", "Organizations", and "Languages". The "Skills" section has a link "Edit this list". The "Target group" section has a list of professions: Automotive Technician, Automotive whitesmith, CAD Engineer, CNC machine tool programme, CNC Operator, Designer, Development Manager, and Director. The "Organizations" section has a list: Tallinna Tehnikaülikool. The "Languages" section has a list: English, Estonian, and Finnish. Below the search results, it says "Found 1 course". The course is "MET8110 Production Engineering". It has a duration of "2007-01-29 - 2007-05-21 (88 hours)" and is offered by "Tallinna Tehnikaülikool". There are "details" and "view" buttons for the course. The "view" button has a magnifying glass icon.

Figure 3-3 Screenshot of courses calendar search menu with an exemplary result



The found course details can be viewed by clicking on button “View” or “Details” (Fig. 3-4).



Found 1 course

[MET8110 Production Engineering](#)

2007-01-29 - 2007-05-21 (88 hours)      Tallinna Tehnikaülikool

[details](#)       view       reserve

course type	languages	lecturer	price
E-learning (e-course)	English, Estonian	Kaia Lõun; Tauno Otto	

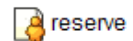
target: CAD Engineer, Financial Director/Manager, Lead Mechanical Designer, Manufacturing Engineer, Mechanical Engineer, Production Director, Production Manager

schedule:

1. HOMEWORK 1
2. HOMEWORK 2
3. HOMEWORK 3
4. HOMEWORK 4
5. INTRODUCTION 2007-01-29 18:00:00 (2 h) K.Lõun, T.Otto
6. MAIN COMPONENTS OF PRODUCTION. ORGANISATION AND MANAGEMENT OF MANUFACTURING ENTERPRISE. PRODUCTION CONCEPTS 2007-02-05 18:00:00 (2 h) K.Lõun, T.Otto
7. Presentations 2007-02-19 18:00:00 (2 h) K.Lõun, T.Otto
8. INTEGRATED PRODUCTION. PRODUCTION SYSTEMS AND THEIR CLASSIFICATION. TECHNOLOGICAL CAPABILITIES 2007-02-26 18:00:00 (2 h) K.Lõun, T.Otto
9. QUALITY FUNCTIONS AS KEY FACTORS. 2007-03-05 18:00:00 (2 h) K.Lõun, T.Otto
0. Presentations 2007-03-19 18:00:00 (2 h) K.Lõun, T.Otto
1. HUMAN RESOURCES DEVELOPMENT IN ENTERPRISE. PRACTICAL EXERCISES IN COMPUTER CLASS. 2007-03-26 18:00:00 (2 h) K.Lõun, T.Otto
2. ANALYSIS OF EFFICIENCY OF THE COMPANY. POSSIBILITIES OF INCREASING THE COMPETITIVENESS. PRODUCTIVITY 2007-04-02 18:00:00 (2 h) K.Lõun, T.Otto
3. Presentations 2007-04-16 18:00:00 (2 h) K.Lõun, T.Otto
4. LAYOUT PLANNING. ESSENCE OF PRODUCTION PLANNING 2007-04-23 18:00:00 (2 h) K.Lõun, T.Otto
5. TRANSPORTATION TASKS. DETERMINATION OF AN OPTIMAL ORDER OF DETAIL MACHINING 2007-04-30 18:00:00 (2 h) K.Lõun, T.Otto
6. Presentations 2007-05-14 18:00:00 (2 h) K.Lõun, T.Otto
7. Presentations 2007-05-21 18:00:00 (2 h) K.Lõun, T.Otto

Figure 3-4 Screenshot of found course details

### 3.3.2. Making reservations



It should be noticed, that button “View” gives better overview of the course. It is also possible to reserve a place for some course by clicking “Reserve”.

So, for making a reservation from Public User point of view should be searched for a needed course either by keyword, date, profession or skills, and after finding the interesting one there is possible after detailed view also making of reservation. This functionality enables finding courses also people looking for new perspectives outside of company.

For making reservation the following information is expected to input (Fig 3-5):

- First name
- Last name
- ID code (personal code)
- Profession
- Contact phone
- Contact e-mail
- Order type and delivery way

Optional information for registration includes also:

- Home address
- Zip code
- Organization
- Registration no of organization
- Address of organization
- Field of activity of the organization
- Comments

**MET8110 Production Engineering**

Course is held by Tallinna Tehnikaülikool and starts at 2007-01-29.

Please enter Your information below. Fields marked with \* must be entered!

first name *	<input type="text"/>
last name *	<input type="text"/>
personal code *	<input type="text"/>
profession *	<input type="text"/>
contact phone *	<input type="text"/>
contact e-mail *	<input type="text"/>
home address	<input type="text"/>
home address zipcode	<input type="text"/>
organization	<input type="text"/>
organization registration number	<input type="text"/>
organization address	<input type="text"/>
organization address zipcode	<input type="text"/>
organization activities	<input type="text"/>
order type *	
order delivery way *	
comments	<input type="text"/>

Figure 3-5 Screenshot of course registration page

### 3.4. Reports

On this level the menu “Reports” gives overview of skill values – a generalized report.

The report can be generated according to:

- Profession
- Skill type
  - All skill types
  - Basic skills
  - General skills
  - Special skills
  - Personal identity
- Skill
- Region
- Sector
  - All sectors
  - Machinery
  - Automotive engineering
  - Metal engineering
  - Instrumentation engineering
  - Apparatus engineering
- Sorting order
  - Medium actual value, lowest to highest
  - Medium actual value, highest to lowest
  - Medium difference between required actual value, highest to lowest
  - Medium difference between required actual value, lowest to highest
  - Skill name (in ascending order)
  - Skill name (in descending order)

The screenshot shows a web interface for generating a report. At the top, there is a navigation bar with links: 'Courses calendar', 'Reports' (highlighted), and 'Login to system'. On the right, there are language options: 'Eesti', 'English' (selected), and 'Latviešu'. Below the navigation bar, the main heading is 'Overview of skill values - report parameters'. The form contains several dropdown menus: 'profession' set to 'Marketing Manager', 'skill type' set to '(all skill types)', 'skill' set to '(all)', 'region' set to 'Northern Estonia' (with a note: 'If region is selected, only data from organizations operating in that region is included'), 'sector' set to 'Machinery' (with a note: 'If sector is selected, only data from organizations operating in that sector is included'), and 'sorting order' set to 'Medium actual value, lowest - highest' (with a note: 'Select sorting order on report'). At the bottom of the form is a 'Next' button.

Figure 3-6 Overview of skill values – selection of report parameters

Next

After clicking on button “Next” the graphical representation is shown (Fig 3-7).

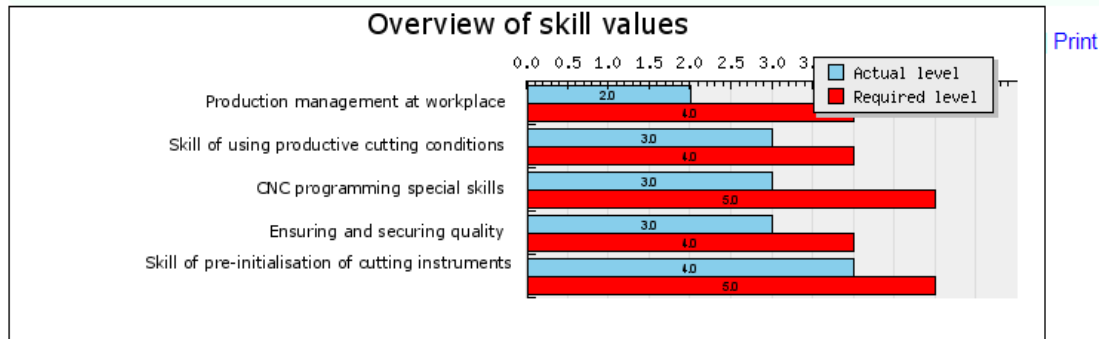


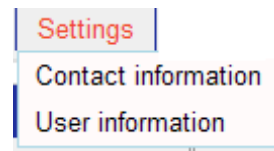
Figure 3-7 Overview of skill values – graphical representation

Actual level is represented by blue and required (needed) level by red.

### 3.5. Settings

In first time visit one should check and fill settings data. The “User information” page enables change of:

- Password
- First name
- Last name



The “Contact information” page enables to input/edit data concerning:

- Region
- Sector
- City
- County
- Phone
- Fax
- Mail
- Web page
- Head/Director

## 4. Enterprise User

Company	Training	Reports	Settings	Logout
---------	----------	---------	----------	--------

Enterprise User can see the following:

- Company data
- Training (courses calendar)
- Reports
- Settings
  - User settings
  - User information
- Logout

### 4.1. *Company*

This menu includes options for entering:

- Company information
- Company structure
- Company skill cards
- Workers skills
- Expert tool questionnaire
- Expert tool results

Company
Company information
Company structure
Company skill cards
Skill card templates
Workers skills
Expert-tool questionnaire
Expert-tool results

#### 4.1.1. **Company information**

Includes data fields for filling in the first time session, can be edited afterwards.

- Region
- Sector
- Address
- City
- County
- Phone
- Fax
- Mail
- Web page
- Head/Director

#### 4.1.2. **Company structure**

This menu item enables to describe whole structure of the company.

#### 4.1.2.1. Division data

As the first step divisions must be added (see Fig. 4-1). Each division can be defined by:

- Parent division
- Name of division
- Description

The screenshot shows a form with two tabs: 'Division' (selected) and 'Professions'. The form has three main input fields: 'parent division' (a dropdown menu showing 'Tooling department'), 'name' (a text box containing 'Grinding department'), and 'description' (a text area containing 'Abrasive machining'). Below these fields are two buttons: 'save' and 'cancel'.

Figure 4-1 Division data

- Professions in the division (Fig 4-2)

The screenshot shows the 'Professions' tab. It contains a list of professions with checkboxes next to them. The checked professions are 'CAD Engineer' and 'EDM Operator'. The other professions are 'Automotive Engineer', 'Car technician', 'Car tinsmith', 'CNC operator', 'Designer', 'Development Manager', 'Financial Director/Manager', 'Fitter', and 'Foreman'.

Figure 4-2 Professions selection

- Thereafter subdivisions can be defined (Fig 4-3)

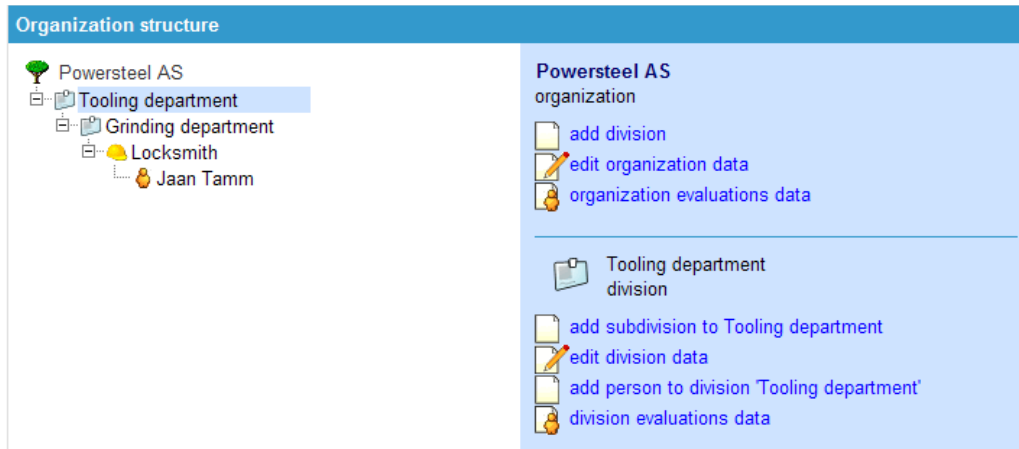


Figure 4-3 Adding divisions into company structure

The inquiries can be done also on division level: by professions (Fig 4-4).

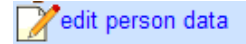
Skill card: New inquiry	
Organization:	Powersteel AS
Organization division:	Grinding department
Person:	
Profession:	Locksmith
Skill card type:	Division skill card
Number of respondents:	<input type="text"/>
Date of inquiry:	<input type="text" value="2007-07-11"/>
Enter actual level assessments of respondent skills as integer values between 0 and 5	
skill	actual level
<b>General Skills</b>	
Computer skills	<input type="text"/>
Metalworking knowledge	<input type="text"/>
General knowledge of machinery	<input type="text"/>
Fitter's tools using	<input type="text"/>
Economic knowledge	<input type="text"/>
Language skills	<input type="text"/>
<b>Basic Skills</b>	
Metalworking skills	<input type="text"/>
Marking and lining-up skills	<input type="text"/>
Detail drawings reading skills	<input type="text"/>
Assmebling with detachable joints	<input type="text"/>
Usage skills of different technological devices	<input type="text"/>

Figure 4-4 Skill card creation from the template

After adding professions, the staff members can be personalized.

#### 4.1.2.2. Staff members data

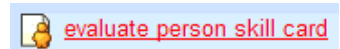
The persons working in the (sub)division can be described from menu “Edit person data” (Fig 4-5).



- ID code (personal code)
- First name
- Last name
- Organization division
- Profession
- Internal worker code
- Birthday
- E-mail
- Phone
- Professional qualification certificate number
- Professional qualification certificate issuer data

Company	Training	Reports	Settings	Logout
<b>Edit person</b>				
personalcode	<input type="text" value="389010217"/>			
firstname *	<input type="text" value="Jaan"/>			
lastname *	<input type="text" value="Tamm"/>			
organization division	<input type="text" value="Grinding department"/>			
profession	<input type="text" value="Locksmith"/>			
workercode	<input type="text" value="32"/>			
birthday <small>Enter persons birthday in format year-month-day</small>	<input type="text" value="1989-01-01"/>			
mail	<input type="text" value="jaan.tamm@powersteel.ee"/>			
phone	<input type="text" value="3578"/>			
qualification_level	<input type="text" value="0"/>			
cert_doc_no	<input type="text"/>			
cert_doc_issuer	<input type="text"/>			
<input type="button" value="save"/> <input type="button" value="cancel"/>				

Figure 4-5 Adding personal data into company structure



Persons can be evaluated using Innomet generated skill cards from menu “Evaluate person skill card”. The inquiry has data fields for estimation of actual level (Fig 4-6).



**Skill card: New inquiry**

Organization:

Powersteel AS

Organization division:

Person:

Jaan Tamm

Profession:

Locksmith

Skill card type:

Person skill card

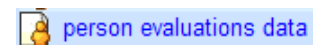
Date of inquiry:

2007-07-11

Enter actual level assessments of respondent skills as integer values between 0 and 5

skill	actual level
<b>General Skills</b>	
Computer skills	<input type="text"/>
Metalworking knowledge	<input type="text"/>
General knowledge of machinery	<input type="text"/>
Fitter's tools using	<input type="text"/>
Economic knowledge	<input type="text"/>
Language skills	<input type="text"/>
<b>Basic Skills</b>	
Metalworking skills	<input type="text"/>
Marking and lining-up skills	<input type="text"/>
Detail drawings reading skills	<input type="text"/>
Assmebling with detachable joints	<input type="text"/>
Usage skills of different technological devices	<input type="text"/>
Constructions assembly	<input type="text"/>
Technomaterials knowledge	<input type="text"/>
Fitter's tools using	<input type="text"/>
Knowledge of measuring equipment	<input type="text"/>
Preparation of wedable constructions	<input type="text"/>
<b>Special Skills</b>	
	<input type="text"/>

Figure 4-6 Skill card generation



Person evaluations (Fig 4-7) data includes results from earlier queries and enables to analyse the progress of professional development (Fig 4-8).

[Company](#)
[Training](#)
[Reports](#)
[Settings](#)
[Logout](#)

### Organization structure

Powersteel AS
 

- Tooling department
  - Grinding department
    - Locksmith
      - Jaan Tamm

#### Powersteel AS organization

- add division
- edit organization data
- organization evaluations data

---

#### Jaan Tamm person

- evaluate person skill card
- person evaluations data
- edit person data

Figure 4-7 Personal evaluation

[Company](#)
[Training](#)
[Reports](#)
[Settings](#)
[Logout](#)

[Eesti](#)
[English](#)
[Latvies](#)

### Person evaluations data

Organization: Powersteel AS

Person name: Jaan Tamm

Profession: Locksmith

Common tasks

Back

#### Inquiries data

#	profession	skill	date	required	actual
1	Locksmith	Computer skills	2007-01-29	1	4
2	Locksmith	Metalworking knowledge	2007-01-29	5	1
3	Locksmith	General knowledge of mach	2007-01-29	5	5
4	Locksmith	Fitter's tools using	2007-01-29	4	4
5	Locksmith	Economic knowledge	2007-01-29	3	3
6	Locksmith	Language skills	2007-01-29	2	5
7	Locksmith	Metalworking skills	2007-01-29	4	3
8	Locksmith	Marking and lining-up ski	2007-01-29	4	4
9	Locksmith	Detail drawings reading s	2007-01-29	4	5
10	Locksmith	Assmebling with detachabl	2007-01-29	4	3
11	Locksmith	Usage skills of different	2007-01-29	3	1
12	Locksmith	Constructions assembly	2007-01-29	4	4
13	Locksmith	Technomaterials knowledge	2007-01-29	4	3
14	Locksmith	Fitter's tools using	2007-01-29	5	4
15	Locksmith	Knowledge of measuring eq	2007-01-29	4	5
16	Locksmith	Preparation of wedable co	2007-01-29	4	3
17	Locksmith	Essential norms and stand	2007-01-29	3	4
18	Locksmith	Welding technologies know	2007-01-29	4	5
19	Locksmith	Knowledge of modern equip	2007-01-29	4	1
20	Locksmith	Knowledge of occupational	2007-01-29	4	3
21	Locksmith	Sense of liability	2007-01-29	4	4
22	Locksmith	Organizing capacity	2007-01-29	3	3
23	Locksmith	Teamwork development abil	2007-01-29	3	5
24	Locksmith	Responsibility	2007-01-29	4	1
25	Locksmith	Concentration ability	2007-01-29	4	3
26	Locksmith	Rush work tolerance	2007-01-29	4	5
27	Locksmith	Learning readiness	2007-01-29	4	4

Figure 4-8 Skill card analysis

### 4.1.3. Company skill cards

Company skill cards can be viewed and filled up here (Fig 4-9).

Skill cards				
new				
#	profession	organization		
1	Member of board	Powersteel AS	view	evaluate
2	Production Manager	Powersteel AS	view	evaluate
3	Designer	Powersteel AS	view	evaluate
4	Foreman	Powersteel AS	view	evaluate
5	Machine tool operator	Powersteel AS	view	evaluate
6	Miller	Powersteel AS	view	evaluate
7	Sheet Metal Worker	Powersteel AS	view	evaluate
8	Welder	Powersteel AS	view	evaluate
9	Locksmith	Powersteel AS	view	evaluate
10	Painter	Powersteel AS	view	evaluate
11	Toolmaker	Powersteel AS	view	evaluate

Figure 4-9 Company skill cards

### 4.1.4. Skill card templates

Company skill card templates can be created here (Fig 4-10).

Skill card

profession

Mechanical Engineer

description

Working with Solid Edge software.

rows

skill	type	required level
3D modeling skills	Special Skills	5

New row

save

cancel

Figure 4-10 Company skill card template

#### 4.1.5. Workers skills

Generates reports either as table or graph form by professions (Fig 4-11).

[Parameters](#) | [Find courses for selected persons](#)

**Report of workers skill values**

#	profession	division	person name	skill type	skill	req	act	diff	
1	Lodsmith	Grinding department	Jaan Tamm	Special Skills	Knowledge of modern equipment	4	1	-3	<input type="checkbox"/>
2	Lodsmith	Grinding department	Jaan Tamm	Basic Skills	Usage skills of different tech	3	1	-2	<input type="checkbox"/>
3	Lodsmith	Grinding department	Jaan Tamm	Personal identity	Responsibility	4	1	-3	<input checked="" type="checkbox"/>
4	Lodsmith	Grinding department	Jaan Tamm	General Skills	Metalworking knowledge	5	1	-4	<input type="checkbox"/>
5	Lodsmith	Grinding department	Jaan Tamm	Basic Skills	Assmebling with detachable joi	4	3	-1	<input type="checkbox"/>
6	Lodsmith	Grinding department	Jaan Tamm	Basic Skills	Technomaterials knowledge	4	3	-1	<input type="checkbox"/>
7	Lodsmith	Grinding department	Jaan Tamm	Special Skills	Knowledge of occupational safe	4	3	-1	<input type="checkbox"/>

Figure 4-11 Workers skill values

This menu item enables to find courses for selected persons.

#### 4.1.6. Expert tool questionnaire

##### 4.1.6.1. Executing simplified questionnaires of internal expert system

The integrated expert enables to estimate needed level for categories as

- Workers
- Engineering staff
- Managerial staff

The expert includes questionnaire, after answering the questions (max 10) will be given estimated answer (Fig 4-12).

**Fill expert-tool questionnaire**

Please answer to all questions!

worker type

1. 2. 3. 4. 5. 6. 7. **Finish**

1. Number of different production processes

☐ 1-3

☐ 4-7

☐ over 7

**next**

Figure 4-12 Internal expert system

For more detailed answer please use additional expert system.

#### 4.1.6.2. Executing complex questionnaires of add-on expert system

1. Open application ( <http://innomet.ttu.ee:8080/innomet/>) . *If it does give an error message due to overload of the server press reload button of the browser .*

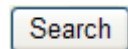


2. Choose language (Fig 4-13).



Figure 4-13 External expert system

3. Find questionnaire
  - a. by default no questionnaires are listed
  - b. enter empty search criteria to list all questionnaires by pressing "Search" button (Fig 4-14)
  - c. or enter criteria of your choice to narrow results



In case you would see all the expert questionnaires, press "Search" button without filling the text box.

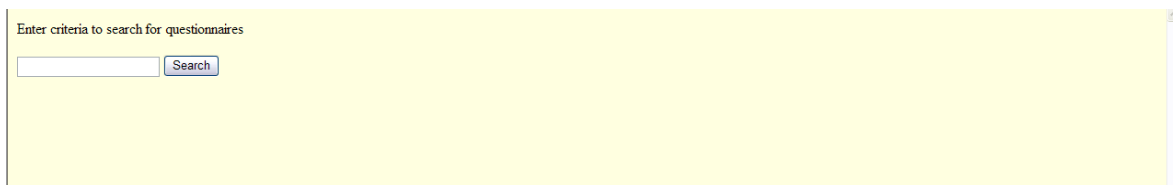


Figure 4-14 External expert system search box

4. Click on the desired questionnaire (Fig 4-15).

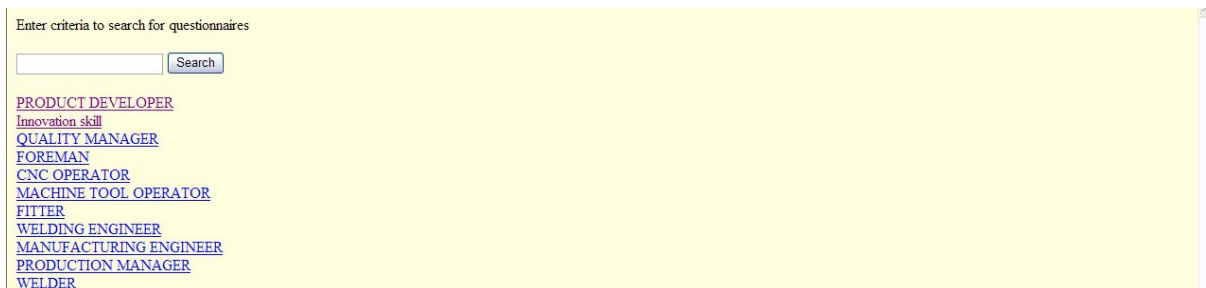


Figure 4-15 External expert system questionnaires selection

5. Fill the answer. Press "Done" for submitting the questionnaire answers (Fig 4-16) .



**PRODUCT DEVELOPER**

Foreign languages skills

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

Average number of product development engineers in the enterprise

☐ less than 5

☐ 5-15

☐ over 15

Virtual testing

☐ Virtual testing is not used

☐ Virtual testing is used in some cases

☐ Virtual testing is necessary in all developed products

Annual R&D budget share of company (million EUR)

☐ Less than 0.2

☐ 0.5-1.0

☐ Over 1

☐ 0.2-0.5

IP politics in company

☐ Patent search is not necessary in product development

☐ Patent searches are necessary

☐ There is IP specialist in the company for patent search

Figure 4-16 External expert system questionnaire answering

## 4.1.7. Expert tool results

### 4.1.7.1. Results by internal expert system

The internal expert system prints out table of questions and corresponding answer weights (Fig 4-17).

Company	Training	Reports	Settings	Logout	
---------	----------	---------	----------	--------	--

### Automated expert evaluation results

Organization: Powersteel AS

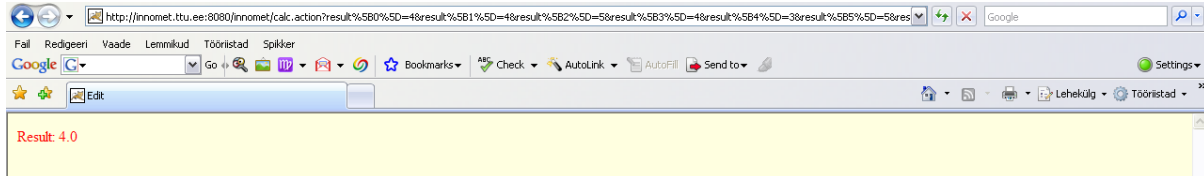
Questionnaire filled: Tauno Otto (2007-07-12 13:20)

Question	Engineering staff
1. Number of different production processes	3-4
2. Average number of operations in the process	3-4
3. Average number of employees in the production area	5-5
4. Average durability of the technologies in use	5-5
5. Number of different products per year	5-5
6. Annual turnover (million EUR)	3-4
7. Use of Production Planning Systems	5-5
Means: 4 (4.36)	

Figure 4-17 Internal expert system results

#### 4.1.7.2. Results by complex add-on expert system

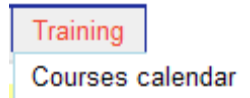
The external complex add-on expert on <http://innomet.ttu.ee:8080/innomet> displays just a number for the result (Fig 4-18).



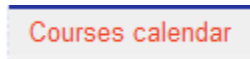
**Figure 4-18 External expert system results**

The result is expert opinion for estimation needed level of profession or competence (skill, knowledge). The expert opinions are given with accuracy of one decimal place after decimal point. For Innomet system it has to be approximated into an integer.

## 4.2. Training



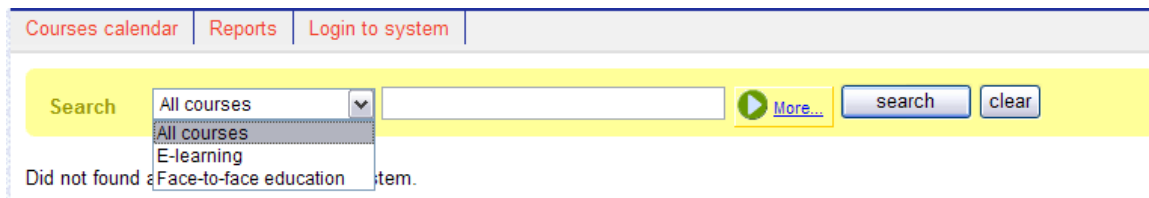
The “Training” menu enables to view or reserve existing courses from courses calendar. After clicking on “Training” the active courses will be shown. The menu item is the same as for public access users.



Course calendar enables to search available courses (Fig 4-19). The options can be:

- All courses
- E-learning courses
- Face-to-face education

This list can be changed by administrator.



**Figure 4-19 Search calendar function**

### 4.2.1. Search of courses

search

The search is performed after clicking on „Search” button.

The search function normally shows only active courses, where registration is open. In case of searching courses what are on the run, but registration is already closed, or courses which are not active, you should expand the search by clicking on button „More” (Fig 4-20).

More...

After that is possible to refine the search by:

- Beginning date
- Ending date
- Maximum price
- Course type: is it e-course
- Target group (by professions or skills)
- Language

clear

The search boxes can be cleared by clicking on button “Clear”.

The screenshot shows a web interface for searching courses. At the top, there are navigation links: "Courses calendar" (active), "Reports", and "Login to system". Below this is a search bar with a dropdown menu set to "All courses", a search input field, a "More..." button, and "search" and "clear" buttons. The search results are displayed in a yellow box with several filters: "Beginning date" (2007-01-01), "Ending date", "Maximum price" (0.00), "Is e-course" (checkbox), and "date of course beginning" (dropdown). There are also sections for "Skills" (with an "Edit this list" link), "Target group" (a list of professions like Automotive Technician, CAD Engineer, etc.), "Organizations" (Tallinna Tehnikaülikool), and "Languages" (English, Estonian, Finnish). Below the search filters, it says "Found 1 course". The course listed is "MET8110 Production Engineering" with dates "2007-01-29 - 2007-05-21 (88 hours)" and the organization "Tallinna Tehnikaülikool". There are "details" and "view" buttons next to the course name, and a "reserve" button with a calendar icon.

Figure 4-20 Screenshot of courses calendar search menu with an exemplary result

details view

The found course details can be viewed by clicking on button “View” or “Details” (Fig 4-21).



Found 1 course

[MET8110 Production Engineering](#)

2007-01-29 - 2007-05-21 (88 hours)      Tallinna Tehnikaülikool

[details](#)       view       reserve

course type	languages	lecturer	price
E-learning (e-course)	English, Estonian	Kaia Lõun; Tauno Otto	

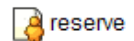
target: CAD Engineer, Financial Director/Manager, Lead Mechanical Designer, Manufacturing Engineer, Mechanical Engineer, Production Director, Production Manager

schedule:

1. HOMEWORK 1
2. HOMEWORK 2
3. HOMEWORK 3
4. HOMEWORK 4
5. INTRODUCTION 2007-01-29 18:00:00 (2 h) K.Lõun, T.Otto
6. MAIN COMPONENTS OF PRODUCTION. ORGANISATION AND MANAGEMENT OF MANUFACTURING ENTERPRISE. PRODUCTION CONCEPTS 2007-02-05 18:00:00 (2 h) K.Lõun, T.Otto
7. Presentations 2007-02-19 18:00:00 (2 h) K.Lõun, T.Otto
8. INTEGRATED PRODUCTION. PRODUCTION SYSTEMS AND THEIR CLASSIFICATION. TECHNOLOGICAL CAPABILITIES 2007-02-26 18:00:00 (2 h) K.Lõun, T.Otto
9. QUALITY FUNCTIONS AS KEY FACTORS. 2007-03-05 18:00:00 (2 h) K.Lõun, T.Otto
0. Presentations 2007-03-19 18:00:00 (2 h) K.Lõun, T.Otto
1. HUMAN RESOURCES DEVELOPMENT IN ENTERPRISE. PRACTICAL EXERCISES IN COMPUTER CLASS. 2007-03-26 18:00:00 (2 h) K.Lõun, T.Otto
2. ANALYSIS OF EFFICIENCY OF THE COMPANY. POSSIBILITIES OF INCREASING THE COMPETITIVENESS. PRODUCTIVITY 2007-04-02 18:00:00 (2 h) K.Lõun, T.Otto
3. Presentations 2007-04-16 18:00:00 (2 h) K.Lõun, T.Otto
4. LAYOUT PLANNING. ESSENCE OF PRODUCTION PLANNING 2007-04-23 18:00:00 (2 h) K.Lõun, T.Otto
5. TRANSPORTATION TASKS. DETERMINATION OF AN OPTIMAL ORDER OF DETAIL MACHINING 2007-04-30 18:00:00 (2 h) K.Lõun, T.Otto
6. Presentations 2007-05-14 18:00:00 (2 h) K.Lõun, T.Otto
7. Presentations 2007-05-21 18:00:00 (2 h) K.Lõun, T.Otto

Figure 4-21 Screenshot of found course details

#### 4.2.2. Making reservations



It should be noticed, that button “View” gives better overview of the course. It is also possible to reserve a place for some course by clicking “Reserve”.

So, for making a reservation from Public User point of view should be searched for a needed course either by keyword, date, profession or skills, and after finding the interesting one there is possible after detailed view also making of reservation. This functionality enables finding courses also people looking for new perspectives outside of company.

For making reservation the following information is expected to input (Fig 4-22):

- First name
- Last name
- ID code (personal code)
- Profession
- Contact phone
- Contact e-mail
- Order type and delivery way

Optional information for registration includes also:

- Home address
- Zip code
- Organization
- Registration no of organization
- Address of organization
- Field of activity of the organization
- Comments

**MET8110 Production Engineering**

Course is held by Tallinna Tehnikaülikool and starts at 2007-01-29.

Please enter Your information below. Fields marked with \* must be entered!

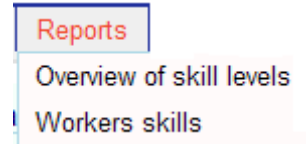
first name *	<input type="text"/>
last name *	<input type="text"/>
personal code *	<input type="text"/>
profession *	<input type="text"/>
contact phone *	<input type="text"/>
contact e-mail *	<input type="text"/>
home address	<input type="text"/>
home address zipcode	<input type="text"/>
organization	<input type="text"/>
organization registration number	<input type="text"/>
organization address	<input type="text"/>
organization address zipcode	<input type="text"/>
organization activities	<input type="text"/>
order type *	
order delivery way *	
comments	<input type="text"/>

Figure 4-22 Screenshot of course registration page

### 4.3. Reports

On this level the menu “Reports” gives overview either of

- skill values – a generalized report
- workers skills – detail reports about own enterprise workforce existing and needed competences.



#### 4.3.1. Overview of skill levels

The general report can be generated according to (Fig 4-23):

- Profession
  - All skill types
  - Basic skills
  - General skills
  - Special skills
  - Personal identity
- Skill type
- Region
- Sector
  - All sectors
  - Machinery
  - Automotive engineering
  - Metal engineering
  - Instrumentation engineering
  - Apparatus engineering

A screenshot of a web application's 'Overview of skill values - report parameters' form. The form is titled 'Overview of skill values - report parameters' and contains several input fields with dropdown menus. The fields are: 'profession' (Marketing Manager), 'skill type' (all skill types), 'skill' (all), 'region' (Northern Estonia), 'sector' (Machinery), and 'sorting order' (Medium actual value, lowest - highest). There is a 'Next' button at the bottom left. The form is set against a light green background. At the top of the page, there is a navigation bar with 'Courses calendar', 'Reports', and 'Login to system' links, and language selection options for 'Eesti', 'English', and 'Latviešu'.

Figure 4-23 Report parameters

- Sorting order
  - Medium actual value, lowest to highest

- Medium actual value, highest to lowest
- Medium difference between required actual value, highest to lowest
- Medium difference between required actual value, lowest to highest
- Skill name (in ascending order)
- Skill name (in descending order)

After clicking on button “Next” the graphical representation is shown on Fig 4-24.

Next

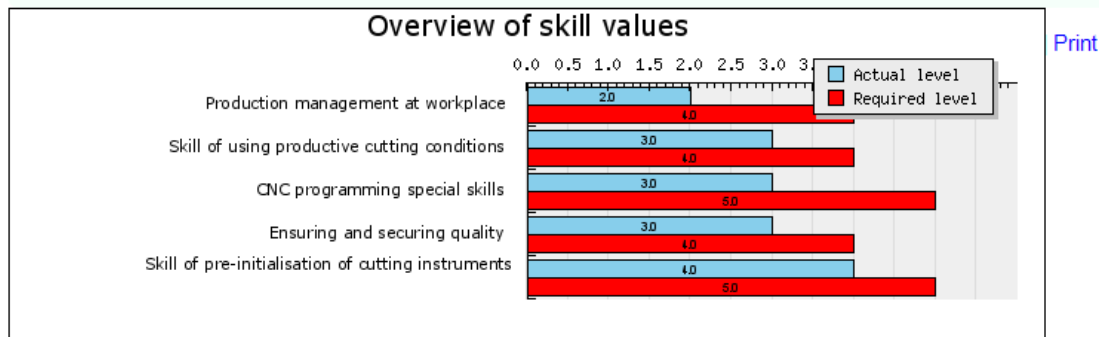


Figure 4-24 Graphical representation of skill values

Actual level is represented by blue and required (needed) level by red.

Courses calendar Reports

### 4.3.2. Workers skills

The enterprise's internal report can be generated according to:

- Profession
- Skill
- Organisation division
- Sorting order (Fig 4-25)
  - Medium actual value, lowest to highest
  - Medium actual value, highest to lowest
  - Medium difference between required actual value, highest to lowest
  - Medium difference between required actual value, lowest to highest
  - Skill name (in ascending order)
  - Skill name (in descending order)

Company Training Reports Settings Logout

### Overview of worker skill values - report parameters

profession: CAD Engineer

skill: Management skills

organization division: Tooling department

sorting order: Actual value, lowest - highest  
Select sorting order on report

level of detailness: Professions skill

output mode: Table

Next

Figure 4-25 Workers skill values – report parameters

- Output mode
  - Table - the output table shows requires skills level (*req*), actual skills level (*act*) and difference between actual and required levels (*diff*) (Fig 4-26).
  - Graph
- Level of granularity (details)
  - Workers skill (by individuals)

[Parameters](#) | [Find courses for selected persons](#)

### Report of workers skill values

#	profession	division	person name	skill type	skill	req	act	diff	
1	Locksmith	Grinding department	Jaan Tamm	General Skills	Metalworking knowledge	5	1	-4	<input type="checkbox"/>
2	Locksmith	Grinding department	Jaan Tamm	Special Skills	Knowledge of modern equipment	4	1	-3	<input type="checkbox"/>
3	Locksmith	Grinding department	Jaan Tamm	Personal identity	Responsibility	4	1	-3	<input type="checkbox"/>

Figure 4-26 Workers skill values – table form

This option enables to find courses for selected persons. By clicking on checkbox after current person's skill one can find suitable courses improving the actual level and minimizing difference.

- Professions skill (by professions, Fig 4-27)

[Parameters](#)

### Report of workers skill values

#	profession	skill type	skill	req	act	diff
1	Locksmith	General Skills	Metalworking knowledge	5.00	1.00	-4.00
2	Locksmith	Personal identity	Responsibility	4.00	1.00	-3.00
3	Locksmith	Special Skills	Knowledge of modern equipment and machinery	4.00	1.00	-3.00
4	Locksmith	Basic Skills	Usage skills of different technological devices	3.00	1.00	-2.00

Figure 4-27 Report of workers skill values

- Professions skill type (by professions, Fig 4-28)

Report of workers skill values						Parameters
#	profession	skill type	req	act	diff	
1	Designer	Special Skills	5.00	4.40	-0.60	
2	Locksmith	Basic Skills	4.00	3.50	-0.50	
3	Designer	General Skills	5.00	4.50	-0.50	
4	Designer	Basic Skills	5.00	4.56	-0.44	

Figure 4-28 Report of workers skill values by professions

- Organizations skill types (Fig 4-29)
  1. basic skills
  2. personal identity
  3. special skills
  4. general skills

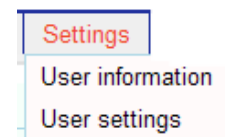
Report of workers skill values						Parameters
#	skill type	req	act	diff		
1	Basic Skills	4.47	4.00	-0.47		
2	Special Skills	4.56	4.13	-0.44		
3	Personal identity	4.44	4.13	-0.31		
4	General Skills	4.29	4.14	-0.14		

Figure 4-29 Organizations skill types

## 4.4. Settings

In first time visit one should check and fill settings data. The “User information” page enables change of (Fig 4-30):

- Password
- First name
- Last name



The “User information” page enables to:

- Select language of computer user interface
- Select language you wish to enter in edit forms

Company Training Reports Settings Logout

### User settings

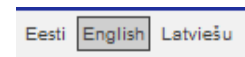
**language**  
Select in what language user interface must be English

**editable languages**  
Select languages that You wish to enter in edit forms

☐ Eesti  
☐ English  
☐ Latviešu

save cancel

**Figure 4-30 Settings panel**



Language of user interface can be changed any time also form upper right language menu.

## 5. Consultant

Skill cards	Organizations	Reports	Classificators	Settings	Logout
-------------	---------------	---------	----------------	----------	--------

The consultant is functionality for serving enterprises in preparation of skill cards of their own (if needed). It includes menus as:

- Skill cards
- Organizations
- Reports
- Classificators
- Settings

### 5.1. Skill cards

#### 5.1.1. Skill card templates

Company skill card templates can be created here (Fig 5-1).

**Skill cards**  
 Skill card templates  
 Company skill cards  
 Expert-tool questionnaire  
 Expert-tool results  
 Expert-tool configuration

**Skill card**

profession: Mechanical Engineer

description: Working with Solid Edge software.

skill	type	required level
3D modeling skills	Special Skills	5

New row

save cancel

Figure 5-1 Company skill card

Existing skill card templates can be viewed, copied, edited or deleted (Fig 5-2).

Skill cards	Organizations	Reports	Classificators	Settings	Logout
-------------	---------------	---------	----------------	----------	--------

Skill card templates		
<span>new</span>	Search: <span>engineer</span>	<span>search</span> <span>clear</span>
#	profession	description
1	Production Engineer	<span>view</span> <span>copy</span> <span>edit</span> <span>delete</span>
2	Industrial Engineer	<span>view</span> <span>copy</span> <span>edit</span> <span>delete</span>

Figure 5-2 Skill card templates panel



### 5.1.2. Company skill cards

Company skill cards can be viewed and filled up here (Fig 5-3). The inquiry can be generated filling up actual level (Fig 5-4).

Skill cards				
new				
#	profession	organization		
1	Member of board	Powersteel AS	view	evaluate
2	Production Manager	Powersteel AS	view	evaluate
3	Designer	Powersteel AS	view	evaluate
4	Foreman	Powersteel AS	view	evaluate
5	Machine tool operator	Powersteel AS	view	evaluate
6	Miller	Powersteel AS	view	evaluate
7	Sheet Metal Worker	Powersteel AS	view	evaluate
8	Welder	Powersteel AS	view	evaluate
9	Locksmith	Powersteel AS	view	evaluate

Figure 5-3 List of company skill cards

Skill cards	Organizations	Reports	Classificators	Settings	Logout
-------------	---------------	---------	----------------	----------	--------

This is new inquiry.  
Saved evaluations:

- 2007-04-12

#### Skill card: New inquiry

Organization: **Moreno Ltd**  
 Organization division:  
 Person:  
 Profession: **Lead Mechanical Designer**  
 Skill card type: **Organization skill card**  
 Number of respondents:   
 Date of inquiry:

Enter actual level assessments of respondent skills as integer values between 0 and 5

skill	actual level
<b>General Skills</b>	
Language skills	<input type="text"/>
CAD systems knowledge	<input type="text"/>
Design skills	<input type="text"/>
General knowledge of pricing	<input type="text"/>
Technical knowledge	<input type="text"/>

Figure 5-4 Generation of new inquiry

### 5.1.3. Expert tool questionnaire

#### 5.1.3.1. Executing simplified questionnaires of internal expert system

The integrated expert (Fig 5-5) enables to estimate needed level for categories as

- Workers
- Engineering staff
- Managerial staff

The expert includes questionnaire, after answering the questions (max 10) will be given estimated answer. Consultant can fill questionnaires of one or more companies, allowing this activity.

Skill cards | Organizations | Reports | Classificators | Settings | Logout

Fill expert-tool questionnaire

Please answer to all questions!

organization: Powersteel AS

worker type: Engineering staff

1. 2. 3. 4. 5. 6. 7. Finish

1. Number of different production processes

☐ 1-3

☐ 4-7

☐ over 7

next

Figure 5-5 Inner expert tool

For more detailed answer please use additional expert system.

#### 5.1.3.2. Executing complex questionnaires of add-on expert system

1. Open application ( <http://innomet.ttu.ee:8080/innomet/> ) . If it does give an error message due to overload of the server press reload button of the browser .



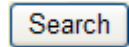
2. Choose language (Fig 5-6).



Figure 5-6 Language selection panel of add-on expert

3. Find questionnaire

- a. by default no questionnaires are listed
- b. enter empty search criteria to list all questionnaires by pressing "Search" button
- c. or enter criteria of your choice to narrow results



In case you would see all the expert questionnaires, press "Search" button without filling the text box (Fig 5-7).

A screenshot of a search panel. It has a yellow background. At the top, it says "Enter criteria to search for questionnaires". Below this is a text input field and a "Search" button.

Figure 5-7 Search panel of expert

4. Click on the desired questionnaire (Fig 5-8).

A screenshot of a list of professions and skills. The list is displayed on a yellow background. The items are: PRODUCT DEVELOPER, Innovation skill, QUALITY MANAGER, FOREMAN, CNC OPERATOR, MACHINE TOOL OPERATOR, FITTER, WELDING ENGINEER, MANUFACTURING ENGINEER, PRODUCTION MANAGER, and WELDER. Each item is a blue hyperlink.

Figure 5-8 Selection of questionnaire by profession/skill

5. Fill the answer. Press "Done" for submitting the questionnaire answers (Fig 5-9).

A screenshot of a questionnaire form. It has a yellow background. The title "PRODUCT DEVELOPER" is in red. The questions are in blue: "Foreign languages skills" with radio buttons 1-5; "Average number of product development engineers in the enterprise" with radio buttons "less than 5", "5-15", and "over 15"; "Virtual testing" with radio buttons "Virtual testing is not used", "Virtual testing is used in some cases", and "Virtual testing is necessary in all developed products"; and "Annual R&D budget share of company (million EUR)" with radio buttons "Less than 0.2", "0.5-1.0", "Over 1", and "0.2-0.5".

Figure 5-9 Questions and answers panel of add-on expert system


#### 5.1.4. Expert tool results

#### 5.1.4.1. Results by internal expert system

The internal expert system prints out table of questions and corresponding answer weights (Fig 5-10). The consultant can see results of selected companies allowing this activity.

[Skill cards](#) | [Organizations](#) | [Reports](#) | [Classificators](#) | [Settings](#) | [Logout](#)

organization



show

### Automated expert evaluation results

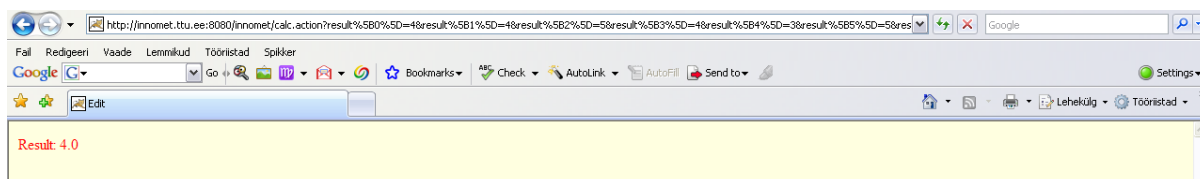
Organization: Powersteel AS  
Questionnaire filled: Tauno Otto (2007-07-12 13:20)

Question	Engineering staff
1. Number of different production processes	3-4
2. Average number of operations in the process	3-4
3. Average number of employees in the production area	5-5
4. Average durability of the technologies in use	5-5
5. Number of different products per year	5-5
6. Annual turnover (million EUR)	3-4
7. Use of Production Planning Systems	5-5
Means:	4 (4.36)

**Figure 5-10 Inner expert results panel**

#### 5.1.4.2. Results by complex add-on expert system

The external complex add-on expert on <http://innomet.ttu.ee:8080/innomet> displays just a number for the result (Fig 5-11).



**Figure 5-11 Add-on expert result output**

The result is expert opinion for estimation needed level of profession or competence (skill, knowledge). The expert opinions are given with accuracy of one decimal place after decimal point. For Innomet system it has to be approximated into an integer.

## 5.1.5. Expert tool configuration

### 5.1.5.1. Configuration by internal expert system

The internal expert system enables to create questionnaires for several subgroups. Currently the subgroups are managers, engineers and workers. For creation a new question the following text fields should be filled (Fig 5-12):

- Question (text)
- Comments
- Number in the list of questions
- Activation (if checkbox is marked, the question is showed)
- Options
  - Text (answer to the question)
  - Minimal weight of this selection
  - Maximal weight of this selection

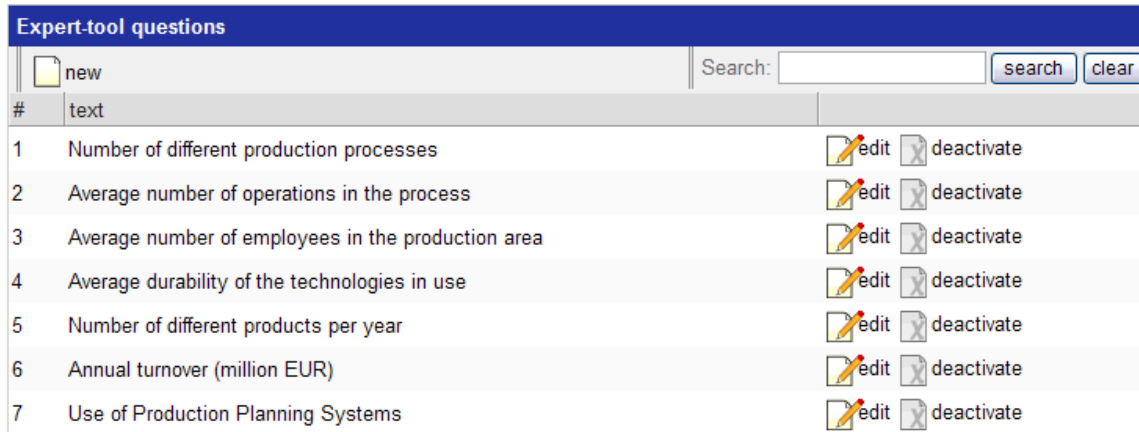
The screenshot shows the 'Edit question' form in the INNOMET II LdV system. The form is divided into several sections:

- Header:** Navigation tabs (Skill cards, Organizations, Reports, Classifiers, Settings, Logout) and language selection (Eesti, English, Latviešu).
- Edit question:** A section with a note 'Fields marked with \* must be entered!'.
- text:** Two input fields for the question text in English ('Use of Production Planning Systems') and Eesti ('Tootmise planeerimise süsteemide kasutamine').
- comments:** Two input fields for comments in English and Eesti, both containing the same text: 'BSC - Balanced Scorecard; ERP - Enterprise Resource Planning; PPS - Production Planning System; 6? - Six Sigma; LM - Lean Manufacturing'.
- ord\_number:** An input field with the value '7'.
- is\_active:** A checkbox that is checked.
- options:** A table with columns 'text', 'min\_level', and 'max\_level'. It contains three rows of options, each with a delete icon and a checkbox.
- Buttons:** 'save' and 'cancel' buttons at the bottom.

	text	min_level	max_level
<input type="checkbox"/>	Not at all	1	2
<input type="checkbox"/>	BSC/Simple ERP	3	4
<input type="checkbox"/>	ERP/6?/ Lean Manuf.	5	5

Figure 5-12 Inner expert tool configuration


The existing questions can be edited or deactivated (Fig 5-13).



#	text	edit	deactivate
1	Number of different production processes		
2	Average number of operations in the process		
3	Average number of employees in the production area		
4	Average durability of the technologies in use		
5	Number of different products per year		
6	Annual turnover (million EUR)		
7	Use of Production Planning Systems		

Figure 5-13 Existing questions in inner expert system

### 5.1.5.2. Configuration by complex add-on expert system

1. Open application with "/admin" (e.g. [www.myserver.com/innomet/admin](http://www.myserver.com/innomet/admin)) (current application <http://innomet.ttu.ee:8080/innomet/admin>). *If it does give an error message due to overload of the server press reload button of the browser.* 
2. Log in (for login name and password at <http://innomet.ttu.ee:8080/innomet/admin/> contact Tauno Otto [tauno.otto@ttu.ee](mailto:tauno.otto@ttu.ee)).
3. Choose language
4. You can use the search field to find questionnaires already known
  - a. use empty criteria to display all questionnaires by pressing "Search" button(Fig 5-14, 5-15).

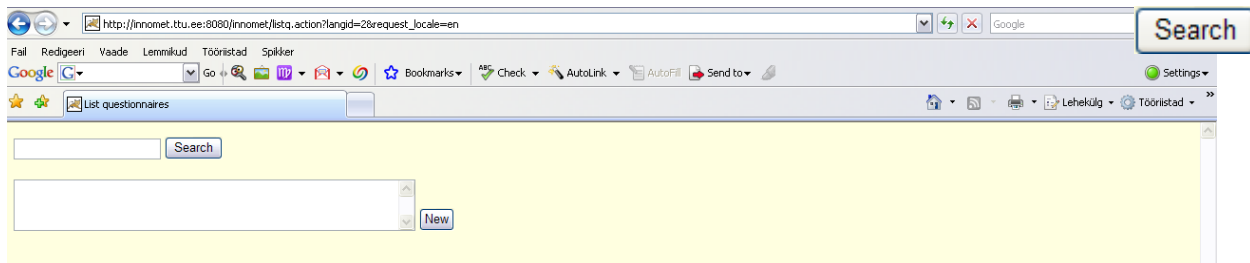


Figure 5-14 Search of suitable questionnaire in add-on expert

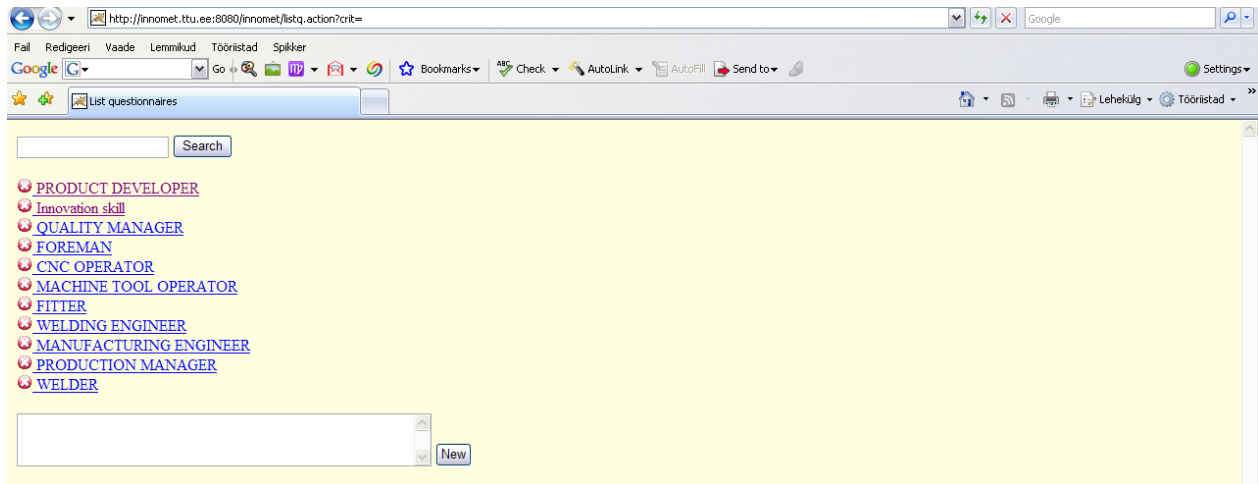


Figure 5-15 List of questionnaires in add-on expert

- b. or criteria of your choice to narrow down the results. E.g. by entering word "product" the system will output "Product Developer" and "Production Manager" (Fig 5-16).

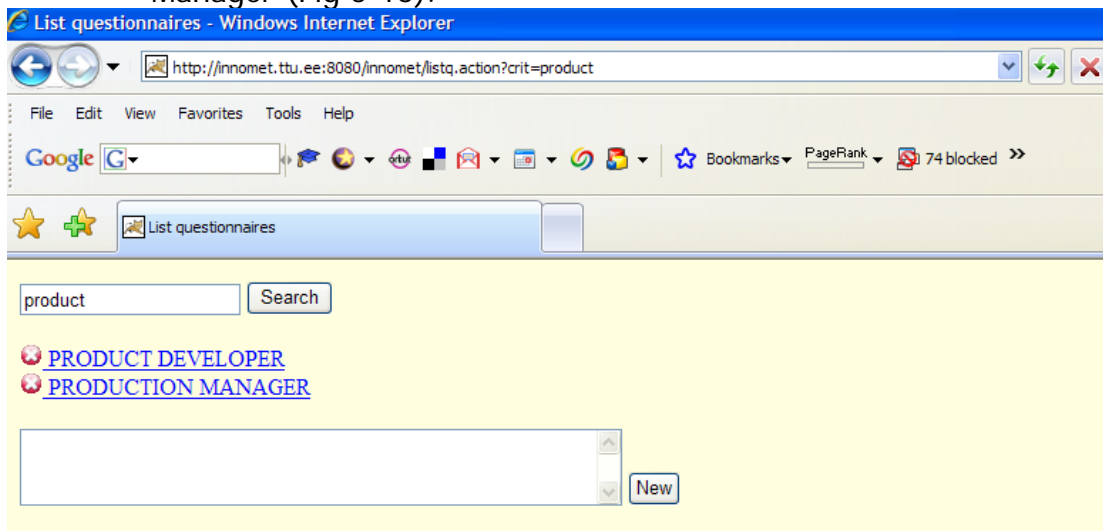


Figure 5-16 Narrowed search example

5. Questionnaires can be deleted (red icon, cross)
6. Use the "new" field to enter new questionnaire
7. The questionnaire heading is displayed at the top row of the page (red, Fig 5-17)



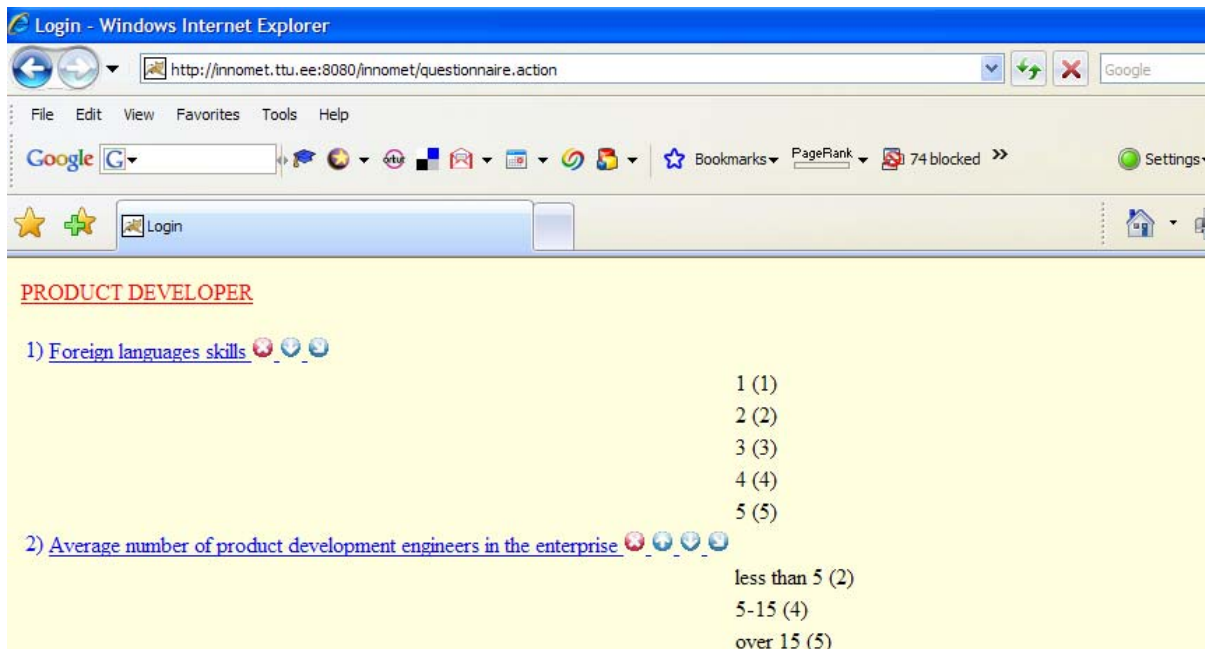


Figure 5-17 Red heading of questionnaire

a. click on it to edit (Fig 5-18)

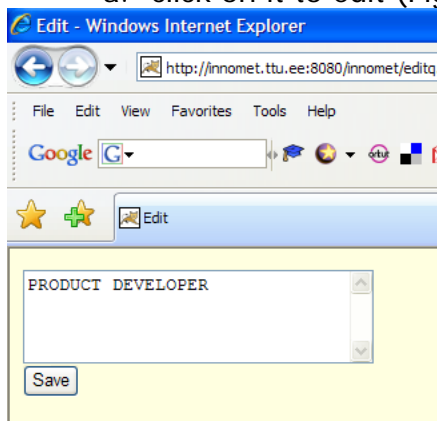


Figure 5-18 Editing heading

8. Use the input box to submit new question

Submit

a. note: use "save" to commit changes

Save

b. note: use "cancel" to abort entering questionnaire


Cancel

9. Questions are displayed in color blue


a. click on them to edit


b. use operation buttons next to questions to operate

i. delete 

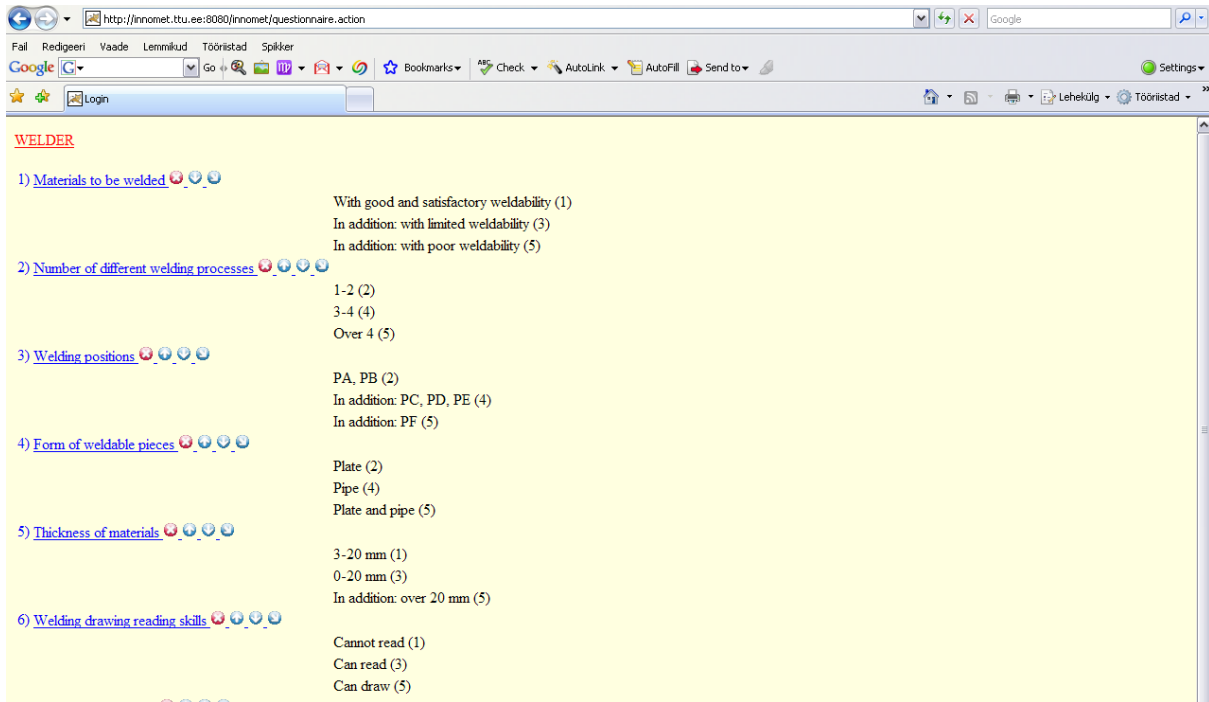
ii. move up 







iii. move down 

iv. edit answers 





10. Click on arrow-down-right  to edit answers (Fig 5-19)







**WELDER**

1) Materials to be welded    

With good and satisfactory weldability (1)  
In addition: with limited weldability (3)  
In addition: with poor weldability (5)

2) Number of different welding processes    

1-2 (2)  
3-4 (4)  
Over 4 (5)

3) Welding positions    

PA, PB (2)  
In addition: PC, PD, PE (4)  
In addition: PF (5)













4) Form of weldable pieces    

Plate (2)  
Pipe (4)  
Plate and pipe (5)

5) Thickness of materials    

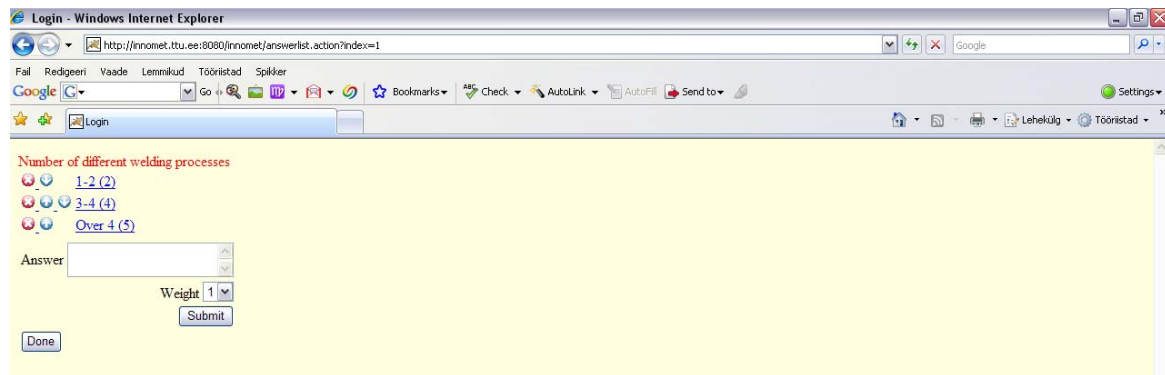
3-20 mm (1)  
0-20 mm (3)  
In addition: over 20 mm (5)

6) Welding drawing reading skills    



Cannot read (1)  
Can read (3)  
Can draw (5)



Figure 5-19 Editing questions



- use the input box for new answer
- choose the answer weight of your choice from the dropdown (Fig 5-20)



Number of different welding processes

  1-2 (2)

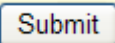

  3-4 (4)




  Over 4 (5)

Answer

Weight 1

Figure 5-20 Setting answer weight

- use "submit" to input 
- use "done" to go back to questions 
- note: answers navigation buttons also include
  - answers content is edited by clicking on it

- ii. delete 
- iii. move up 
- iv. move down 

An exemplary system is available from <http://innomet.ttu.ee:8080/innomet>

## 5.2. Organizations

Organizations allowing consultant to help their activities are shown in this menu window. Consultant can edit the organization's data (Fig 5-21):

- Region
- Sector
- Address
- City
- County
- Phone
- Fax
- Mail
- Web page
- Head/Director









Skill cards	Organizations	Reports	Classificators	Settings	Logout
Data frontend					
 new		Search: <input type="text"/>		<input type="button" value="search"/>	<input type="button" value="clear"/>
Page: 1					
#	name	reg_no			
1	Bestnet Ltd				
2	FEMW OÜ	10864339			
3	Norcar-BSB Eesti AS				

Figure 5-21 List of organizations

It is also possible to describe structure of the company and evaluate staff members (Fig 5-22).

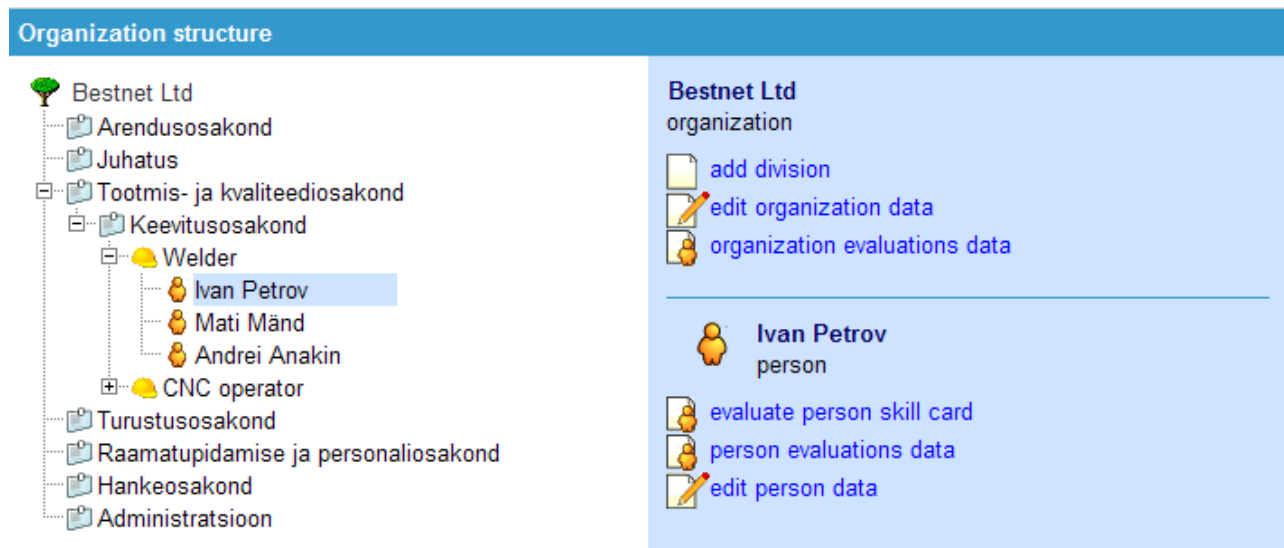


Figure 5-22 Adding divisions into company structure

### 5.2.1.1. Division data

As the first step divisions must be added (see Fig. 5-23). Each division can be defined by:

- Parent division
- Name of division
- Description

Figure 5-23 Divisions data input

- Professions in the division (Fig 5-24)

Division

Professions

professions

☐ Automotive Engineer  
☒ CAD Engineer  
☐ Car technician  
☐ Car tinsmith  
☐ CNC operator  
☐ Designer  
☐ Development Manager  
☒ EDM Operator  
☐ Financial Director/Manager

Figure 5-24 Professions data input

- Thereafter subdivisions can be defined

The inquiries can be done also on division level: by professions.

Skill card: New inquiry

Organization:

Powersteel AS

Organization division:

Grinding department

Person:

Profession:

Locksmith

Skill card type:

Division skill card

Number of respondents:

Date of inquiry:

2007-07-11

Enter actual level assessments of respondent skills as integer values between 0 and 5

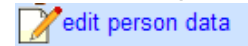
skill	actual level
<b>General Skills</b>	
Computer skills	
Metalworking knowledge	
General knowledge of machinery	
Fitter's tools using	
Economic knowledge	
Language skills	
<b>Basic Skills</b>	
Metalworking skills	
Marking and lining-up skills	
Detail drawings reading skills	
Assmebling with detachable joints	
Usage skills of different technological devices	
Constructions assembly	

Figure 5-25 Inquiries by professions – actual level estimation

After adding professions, the staff members can be personalized.

### 5.2.1.2. Staff members data

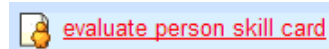
The persons working in the (sub)division can be described from menu “Edit person data” (Fig 5-26).



- ID code (personal code)
- First name
- Last name
- Organization division
- Profession
- Internal worker code
- Birthday
- E-mail
- Phone
- Professional qualification certificate number
- Professional qualification certificate issuer data

Company	Training	Reports	Settings	Logout
<b>Edit person</b>				
personalcode	<input type="text" value="389010217"/>			
firstname *	<input type="text" value="Jaan"/>			
lastname *	<input type="text" value="Tamm"/>			
organization division	<input type="text" value="Grinding department"/>			
profession	<input type="text" value="Locksmith"/>			
workercode	<input type="text" value="32"/>			
birthday <small>Enter persons birthday in format year-month-day</small>	<input type="text" value="1989-01-01"/>			
mail	<input type="text" value="jaan.tamm@powersteel.ee"/>			
phone	<input type="text" value="3578"/>			
qualification_level	<input type="text" value="0"/>			
cert_doc_no	<input type="text"/>			
cert_doc_issuer	<input type="text"/>			
<input type="button" value="save"/> <input type="button" value="cancel"/>				

Figure 5-26 Adding personal data into company structure



Persons can be evaluated using Innomet generated skill cards

from menu “Evaluate person skill card”. The inquiry has data fields for estimation of actual level (Fig 5-27).

**Skill card: New inquiry**

Organization:Powersteel AS

Organization division:

Person:Jaan Tamm

Profession:Locksmith

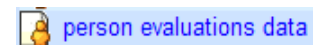
Skill card type:Person skill card

Date of inquiry:2007-07-11

Enter actual level assessments of respondent skills as integer values between 0 and 5

skill	actual level
<b>General Skills</b>	
Computer skills	<input type="text"/>
Metalworking knowledge	<input type="text"/>
General knowledge of machinery	<input type="text"/>
Fitter's tools using	<input type="text"/>
Economic knowledge	<input type="text"/>
Language skills	<input type="text"/>
<b>Basic Skills</b>	
Metalworking skills	<input type="text"/>
Marking and lining-up skills	<input type="text"/>
Detail drawings reading skills	<input type="text"/>
Assmebling with detachable joints	<input type="text"/>
Usage skills of different technological devices	<input type="text"/>
Constructions assembly	<input type="text"/>
Technomaterials knowledge	<input type="text"/>
Fitter's tools using	<input type="text"/>
Knowledge of measuring equipment	<input type="text"/>
Preparation of wedable constructions	<input type="text"/>
<b>Special Skills</b>	
	<input type="text"/>

Figure 5-27 Evaluation of persons skill card



Person evaluations data includes results from earlier queries and enables to analyse the progress of professional development (Fig 5-28).

Company Training Reports Settings Logout Eesti English Latvian

Person evaluations data

Common tasks  
Back

Organization: Powersteel AS  
Person name: Jaan Tamm  
Profession: Locksmith

Inquiries data

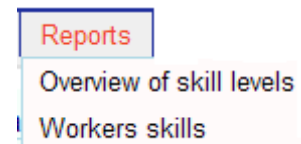
#	profession	skill	date	required	actual
1	Locksmith	Computer skills	2007-01-29	1	4
2	Locksmith	Metalworking knowledge	2007-01-29	5	1
3	Locksmith	General knowledge of mach	2007-01-29	5	5
4	Locksmith	Fitter's tools using	2007-01-29	4	4
5	Locksmith	Economic knowledge	2007-01-29	3	3
6	Locksmith	Language skills	2007-01-29	2	5
7	Locksmith	Metalworking skills	2007-01-29	4	3
8	Locksmith	Marking and lining-up ski	2007-01-29	4	4
9	Locksmith	Detail drawings reading s	2007-01-29	4	5
10	Locksmith	Assmebling with detachabl	2007-01-29	4	3
11	Locksmith	Usage skills of different	2007-01-29	3	1
12	Locksmith	Constructions assembly	2007-01-29	4	4
13	Locksmith	Technomaterials knowledge	2007-01-29	4	3
14	Locksmith	Fitter's tools using	2007-01-29	5	4
15	Locksmith	Knowledge of measuring eq	2007-01-29	4	5
16	Locksmith	Preparation of wedable co	2007-01-29	4	3
17	Locksmith	Essential norms and stand	2007-01-29	3	4
18	Locksmith	Welding technologies know	2007-01-29	4	5
19	Locksmith	Knowledge of modern equip	2007-01-29	4	1
20	Locksmith	Knowledge of occupational	2007-01-29	4	3
21	Locksmith	Sense of liability	2007-01-29	4	4
22	Locksmith	Organizing capacity	2007-01-29	3	3
23	Locksmith	Teamwork development abil	2007-01-29	3	5
24	Locksmith	Responsibility	2007-01-29	4	1
25	Locksmith	Concentration ability	2007-01-29	4	3
26	Locksmith	Rush work tolerance	2007-01-29	4	5
27	Locksmith	Learning readiness	2007-01-29	4	4

Figure 5-28 Person evaluation data

## 5.3. Reports

On this level the menu "Reports" gives overview either of

- skill values – a generalized report
- workers skills – detail reports about own enterprise workforce existing and needed competences.



### 5.3.1. Overview of skill levels

The general report can be generated according to:

- Profession
- Skill type
  - All skill types
  - Basic skills
  - General skills
  - Special skills
  - Personal identity
- Region
- Sector
  - All sectors
  - Machinery

- Automotive engineering
- Metal engineering
- Instrumentation engineering
- Apparatus engineering
- Sorting order (Fig 5-29)
  - Medium actual value, lowest to highest
  - Medium actual value, highest to lowest
  - Medium difference between required actual value, highest to lowest
  - Medium difference between required actual value, lowest to highest
  - Skill name (in ascending order)
  - Skill name (in descending order)

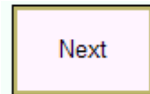
Courses calendar | Reports | Login to system | Eesti | English | Latviešu

### Overview of skill values - report parameters

profession	Marketing Manager
skill type	(all skill types)
skill	(all)
region	Northern Estonia
sector	Machinery
sorting order	Medium actual value, lowest - highest

Next

Figure 5-29 Setting up report parameters



After clicking on button “Next” the graphical representation is shown (Fig 5-30).

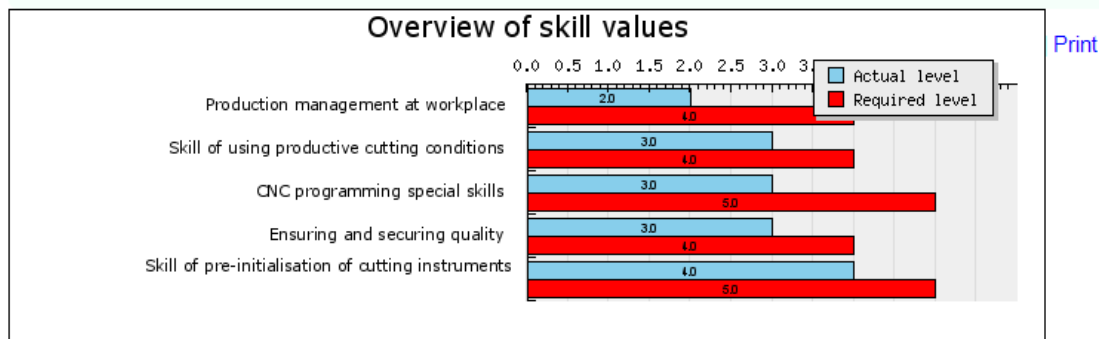


Figure 5-30 Graphical representation of skill values

Actual level is represented by blue and required (needed) level by red.



### 5.3.2. Workers skills

The enterprise's internal report can be generated according to (Fig 5-31):

- Profession
- Skill
- Organisation division

Company Training Reports Settings Logout

Overview of worker skill values - report parameters

profession CAD Engineer

skill Management skills

organization division Tooling department

sorting order Actual value, lowest - highest  
Select sorting order on report

level of detailness Professions skill

output mode Table

Next

Figure 5-31 Workers skills report parameters

- Sorting order
  - Medium actual value, lowest to highest
  - Medium actual value, highest to lowest
  - Medium difference between required actual value, highest to lowest
  - Medium difference between required actual value, lowest to highest
  - Skill name (in ascending order)
  - Skill name (in descending order)
- Output mode
  - Table - the output table shows requires skills level (*req*), actual skills level (*act*) and difference between actual and required levels (*diff*), see Fig 5-32.
  - Graph
- Level of granularity (details)
  - Workers skill (by individuals)

[Parameters](#) | [Find courses for selected persons](#)

### Report of workers skill values

#	profession	division	person name	skill type	skill	req	act	diff	
1	Locksmith	Grinding department	Jaan Tamm	General Skills	Metalworking knowledge	5	1	-4	<input type="checkbox"/>
2	Locksmith	Grinding department	Jaan Tamm	Special Skills	Knowledge of modern equipment	4	1	-3	<input type="checkbox"/>
3	Locksmith	Grinding department	Jaan Tamm	Personal identity	Responsibility	4	1	-3	<input type="checkbox"/>

Figure 5-32 Table output of skill values

This option enables to find courses for selected persons. By clicking on checkbox after current person's skill one can find suitable courses improving the actual level and minimizing difference.

- Professions skill (by professions, Fig 5-33)

[Parameters](#)

### Report of workers skill values

#	profession	skill type	skill	req	act	diff	
1	Locksmith	General Skills	Metalworking knowledge	5.00	1.00	-4.00	
2	Locksmith	Personal identity	Responsibility	4.00	1.00	-3.00	
3	Locksmith	Special Skills	Knowledge of modern equipment and machinery	4.00	1.00	-3.00	
4	Locksmith	Basic Skills	Usage skills of different technological devices	3.00	1.00	-2.00	

Figure 5-33 Professions skill report table

- Professions skill type (by professions, Fig 5-34)

[Parameters](#)

### Report of workers skill values

#	profession	skill type	req	act	diff	
1	Designer	Special Skills	5.00	4.40	-0.60	
2	Locksmith	Basic Skills	4.00	3.50	-0.50	
3	Designer	General Skills	5.00	4.50	-0.50	
4	Designer	Basic Skills	5.00	4.56	-0.44	

Figure 5-34 Report by professions

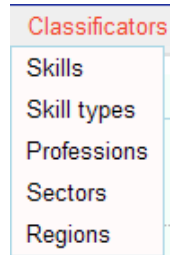
- Organizations skill type (Fig 5-35)
  - basic skills
  - personal identity
  - special skills
  - general skills

[Parameters](#)

### Report of workers skill values

#	skill type	req	act	diff	
1	Basic Skills	4.47	4.00	-0.47	
2	Special Skills	4.56	4.13	-0.44	
3	Personal identity	4.44	4.13	-0.31	
4	General Skills	4.29	4.14	-0.14	

Figure 5-35 Skill type values report table



## 5.4. Classifiers

### 5.4.1. Skills

Skills can be added or edited from this menu (Fig 5-36).

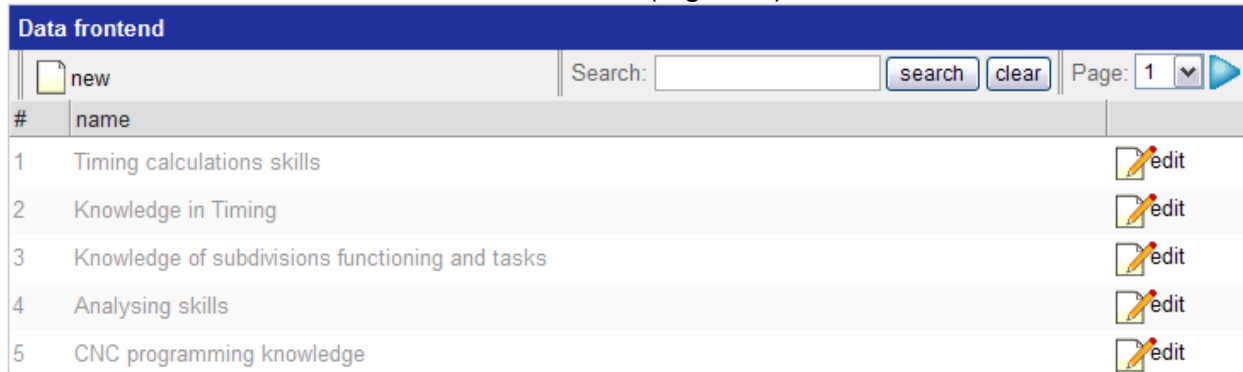


Figure 5-36 Skills editorial panel

When defining a new skill, default type must be selected. Comments are option – helping to understand the content of the skill/knowledge (Fig 5-37).

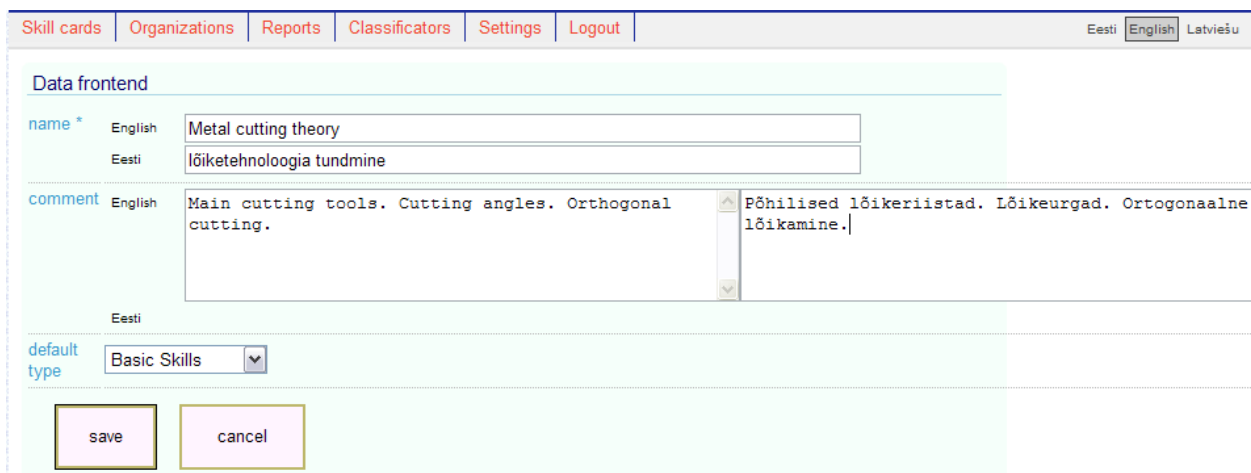


Figure 5-37 Skill definition

### 5.4.2. Skill types

Current skill types are general, basic, special skills and personal identity. If needed the skills can be renamed or added from this menu item (Fig 5-39).







Data frontend		
 new		Search: <input type="text"/> <input type="button" value="search"/> <input type="button" value="clear"/>
#	name	
1	General Skills	 edit
2	Basic Skills	 edit
3	Special Skills	 edit
4	Personal identity	 edit
5		 edit

Figure 5-38 Skill types definition

### 5.4.3. Professions

Professions can be searched and seen from this menu (Fig 5-39). Editing and adding professions is however disabled for consultant and can be done only by administrator.






Data frontend		
 new		Search: <input type="text"/> <input type="button" value="search"/> <input type="button" value="clear"/>
#	name	
1	Machine tool operator	 edit
2	Locksmith	 edit
3	Production Director	 edit
4	Group Manager	 edit

Figure 5-39 Professions list

### 5.4.4. Sectors

Sectors can be searched, edited and added from this menu (Fig 5-40).










Data frontend		
 new		Search: <input type="text"/> <input type="button" value="search"/> <input type="button" value="clear"/>
#	name	
1	Machinery	 edit
2	Metal Engineering	 edit
3	Automotive Engineering	 edit
4	Educational Organisation	 edit
5	Apparatus Engineering	 edit
6	Consultancy	 edit
7	Awarding Body	 edit
8	Instrumentation Engineering	 edit

Figure 5-40 Sectors setup

### 5.4.5. Regions

Regions can be searched, edited and added from this menu (Fig 5-41).

#	name	
1	Northern Estonia	edit
2	Southern Estonia	edit
3	Eastern Estonia	edit
4	Western Estonia	edit
5	Portugal	edit
6	Latvia	edit
7	Sweden	edit
8	Italia	edit
9	Hungary	edit
10	Finland	edit
11	Northern Portugal	edit

Figure 5-41 Regions setup

## 5.5. Settings

In first time visit one should check and fill settings data. The “User information” page enables change of:

- Password
- First name
- Last name

- Settings
- User information
- User settings

The “User information” page enables to (Fig 5-42):

- Select language of computer user interface
- Select language you wish to enter in edit forms

Company Training Reports Settings Logout

### User settings

**language**  
Select in what language user interface must be English ▼

**editable languages**  
Select languages that You wish to enter in edit forms

☐ Eesti  
☐ English  
☐ Latviešu

save cancel

**Figure 5-42** User settings

Eesti English Latviešu

Language of user interface can be changed any time also form upper right language menu.

## 6. Administrator

Administrator has the privileges of all users.

Administrator	Training	Skill cards	Reports	Settings	Logout
---------------	----------	-------------	---------	----------	--------

### 6.1. Administration

Includes

- Users
- Organizations
- Classificators
- System log
- Settings

Administrator
Users
Organizations
Classificators ▶
System log
Settings

#### 6.1.1. Users

Users can be searched, edited and added from this menu (Fig 6-1).

User manager

new

Search:

search

clear

Page:

1

#	login	firstname	lastname	roles	
1	edvin	Edvin	Teekivi	Administrator	<div><div></div>edit</div> <div><div></div>delete</div>
2	jyri	Jüri	Riives	Konsultant	<div><div></div>edit</div> <div><div></div>delete</div>

Figure 6-1 Users list

When adding new users, the following data fields should be filled (Fig 6-2):

- Login name
- Password
- First name
- Last name
- E-mail
- Roles
  - Administrator
  - Consultant
  - Company
  - Educational organisation
  - Other
    - Representing company

**Add user**

login \*

password

firstname

lastname

mail

is disabled ☐

roles

role	other
Administrator	<input type="text"/>

Figure 6-2 User data input

### 6.1.2. Organizations

Organizations can be searched, edited and added from this menu (Fig 6-3).

**Data frontend**

Search:    Page: 1

#	name	reg_no	
1	Bestnet Ltd		<input type="button" value="edit"/> <input type="button" value="structure"/>
2	FEMW OÜ	10864339	<input type="button" value="edit"/> <input type="button" value="structure"/>
3	Norcar-BSB Eesti AS		<input type="button" value="edit"/> <input type="button" value="structure"/>

Figure 6-3 Organizations list

When adding new organization following data is needed (Fig 6-4):

- Name
- Registration number
- Region
- Sector
- Address
- City



- County
- Phone
- Fax
- Mail
- Web page
- Head/Director

Common tasks  
? Edit help

name English

\*

reg\_no

data

region

sector

address

city

county

phone

fax

mail

web

director

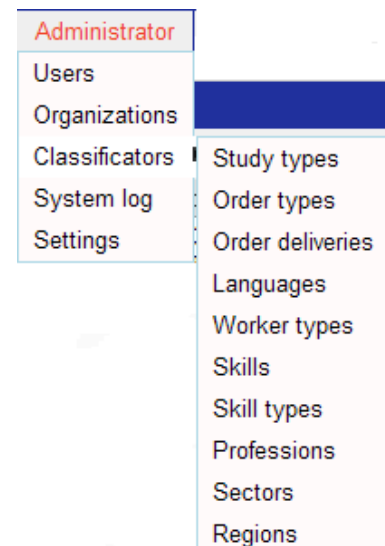
save cancel

Figure 6-4 Organization's datasheet

### 6.1.3. Classifiers

Classifiers can be edited and added from this menu:

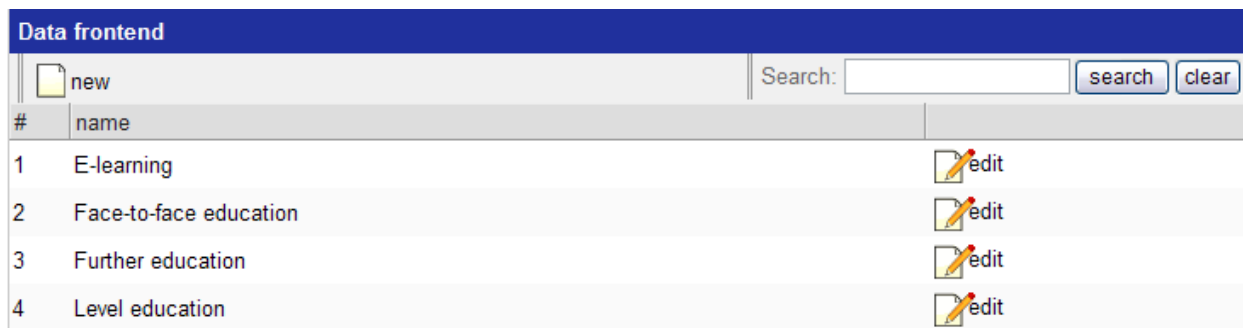
- Study types
- Order types
- Order deliveries
- Languages
- Worker types
- Skills
- Skill types
- Professions
- Sectors
- Regions



### 6.1.3.1. Study types

Study types can be added or edited from this menu. Currently the types are categorized as:

- E-learning
- Face-to-face education
- Further education
- Level education








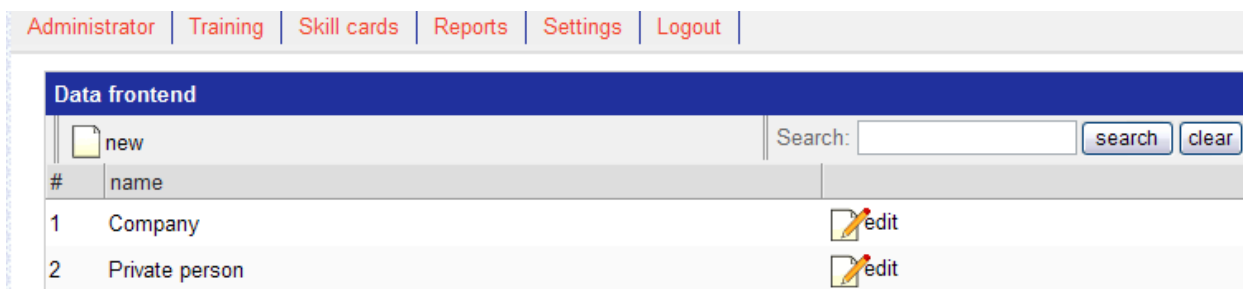
Data frontend		
 new		Search: <input type="text"/> <input type="button" value="search"/> <input type="button" value="clear"/>
#	name	
1	E-learning	 edit
2	Face-to-face education	 edit
3	Further education	 edit
4	Level education	 edit

Figure 6-5 Study types setup

### 6.1.3.2. Order types

Order types can be added or edited from this menu (Fig 6-6). Currently the types are categorized as drawing up an invoice for following course participants:

- Company
- Private person






Data frontend		
 new		Search: <input type="text"/> <input type="button" value="search"/> <input type="button" value="clear"/>
#	name	
1	Company	 edit
2	Private person	 edit

Figure 6-6 Order types

### 6.1.3.3. Order deliveries

Order deliveries can be added or edited from this menu (Fig 6-7). Currently the types are categorized as sending invoice to participant in following way:

- By e-mail
- By regular mail

#	name	
1	By e-mail	edit
2	By regular mail	edit

Figure 6-7 Order deliveries

### 6.1.3.4. Worker types

Working staff types can be added or edited from this menu (Fig 6-8). Currently the types are categorized as:

- Engineering staff
- Managerial staff
- Workers

#	name	
1	Engineering staff	edit
2	Managerial staff	edit
3	Workers	edit

Figure 6-8 Staff members classification setup

### 6.1.3.5. Skills

Skills can be added or edited from this menu (Fig 6-9).

#	name	
1	Timing calculations skills	edit
2	Knowledge in Timing	edit
3	Knowledge of subdivisions functioning and tasks	edit

Figure 6-9 Skills list

When defining a new skill, default type must be selected (Fig 6-10). Comments are option – helping to understand the content of the skill/knowledge.

**Data frontend**

**name \***

English: Metal cutting theory

Eesti: lõiketehnoloogia tundmine

**comment**

English: Main cutting tools. Cutting angles. Orthogonal cutting.

Eesti: Põhilised lõikeriistad. Lõikeurgad. Ortogonaalne lõikamine.

**default type**

Basic Skills

save cancel

Figure 6-10 New skill definition

### 6.1.3.6. Skill types

Current skill types are general, basic, special skills and personal identity. If needed the skills can be renamed or added from this menu item (Fig 6-11).

**Data frontend**

new Search: search clear

#	name	
1	General Skills	edit
2	Basic Skills	edit
3	Special Skills	edit
4	Personal identity	edit
5		edit

Figure 6-11 Skill types setup

### 6.1.3.7. Professions

Professions can be searched and seen from this menu (Fig 6-12). Editing and adding professions is however disabled for consultant and can be done only by administrator.






Data frontend		
 new		Search: <input type="text"/> <input type="button" value="search"/> <input type="button" value="clear"/> Page: 1 <input type="button" value="next"/>
#	name	
1	Machine tool operator	 edit
2	Locksmith	 edit
3	Production Director	 edit
4	Group Manager	 edit

Figure 6-12 Professions setup

### 6.1.3.8. Sectors

Sectors can be searched, edited and added from this menu (Fig 6-13).










Data frontend		
 new		Search: <input type="text"/> <input type="button" value="search"/> <input type="button" value="clear"/>
#	name	
1	Machinery	 edit
2	Metal Engineering	 edit
3	Automotive Engineering	 edit
4	Educational Organisation	 edit
5	Apparatus Engineering	 edit
6	Consultancy	 edit
7	Awarding Body	 edit
8	Instrumentation Engineering	 edit

Figure 6-13 Sectors settings

### 6.1.3.9. Regions

Regions can be searched, edited and added from this menu (Fig 6-14).

Data frontend		
new		Search: <input type="text"/> <input type="button" value="search"/> <input type="button" value="clear"/>
#	name	
1	Northern Estonia	edit
2	Southern Estonia	edit
3	Eastern Estonia	edit
4	Western Estonia	edit
5	Portugal	edit
6	Latvia	edit
7	Sweden	edit
8	Italia	edit
9	Hungary	edit
10	Finland	edit
11	Northern Portugal	edit

Figure 6-14 Regions setting

#### 6.1.4. System log

Visits history can be checked. The data as logging in and out, mode (authentication or data insert), user, computer access number, data are saved continuously (Fig 6-15).

Table				
			Search: <input type="text"/> <input type="button" value="search"/> <input type="button" value="clear"/>	Page: 21
#	created	created by	facility	message
601	2007-03-01 12:11:36	eileen(78)/88.43.37.162	auth	user eileen logged out from host 88.43.37.162
602	2007-03-06 09:53:54	piero(58)/81.112.123.182	auth	user piero logged in from host 81.112.123.182
603	2007-03-06 10:14:56	piero(58)/81.112.123.182	data	insert query on courses(111) (data_courses)
604	2007-03-06 10:16:12	piero(58)/81.112.123.182	data	update query on courses(111) (data_courses)
605	2007-03-06 10:16:33	piero(58)/81.112.123.182	data	update query on courses(111) (data_courses)
606	2007-03-06 10:17:31	piero(58)/81.112.123.182	data	update query on courses(111) (data_courses)
607	2007-03-06 10:41:14	piero(58)/81.112.123.182	data	insert query on organization_divisions(45) (data_organization_divisions)
608	2007-03-06 11:31:02	piero(58)/81.112.123.182	auth	user piero logged out from host 81.112.123.182

Figure 6-15 System log

### 6.1.5. Settings

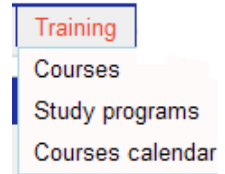
Page title and default language can be changed from here.

## 6.2. Training

Includes

- Courses information
- Study programs information
- Courses calendar

These functionalities have been described in previous use cases.

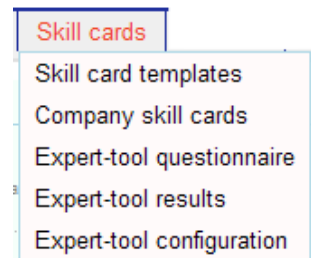


## 6.3. Skill cards

Includes

- Skill card templates
- Company skill cards
- Expert tool questionnaires
- Expert tool results
- Expert tool configuration

These functionalities have been described in previous use cases.

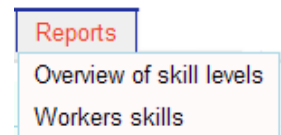


## 6.4. Reports

Includes

- Overview of skill levels
- Workers skills

These functionalities have been described in previous use cases.

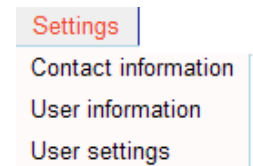


## 6.5. Settings

Includes

- Contact information
- User information
- User setting

These functionalities have been described in previous use cases.



## 6.6. Logout

After ending the session please always click on "Logout"

